

The George Washington University Oral History Project
Interview with John Insko Williams
Conducted on January 3, 2001 by Zachary Schrag

ZS: Zachary Schrag is interviewing Mr. John Insko Williams. It is January 3, 2001, and we are at his home. Is this Boston?

JW: It's Brookline.

ZS: Brookline, Massachusetts. I want to start some with your background and education. Where did you grow up? Where did you go to school?

JW: I was born in Dayton, Ohio on May 28, 1929, and went to grade school and high school there. Following that, I went to Cornell University to study architecture for five years and graduated in 1952.

ZS: Could I pause you there and ask what kind of architecture was being taught there? Were you a modernist?

JW: Yeah, pretty much the modernist kind of thing was popular, was going on at that time. I had to do, as my thesis to graduate from architecture, a major intermodal transit facility. The site was 69th Street in Philadelphia at the interchange between the elevated and the light rail systems and buses and all of that. I had always been interested in trains, a train freak from the day I could walk, I think, because I had a branch line of a railroad that had like one steam train a day behind my house. I think that must have infected me. So

being always interested in trains, I managed to try to make use of that interest in my work, and still a bit more and more, as time has gone on. Following Cornell, I went to MIT for a year in the architecture department to get a Master of Architecture.

ZS: Who were you studying with there? Was that also sort of Bauhaus-inflected?

JW: Yes. We were fortunate in having Buckminster Fuller visit us. In fact, he had been at Cornell dealing with another class for several months the previous year, so he came to work with our group. Our graduate group at MIT Architecture was only thirty-some people, so we were a small group. And of course, being in Boston gave me a great time to go out and ride around on the streetcars, on the subway, and learn more about that.

But finishing MIT, then I was draft bait, and it was after the Korean War, so I was drafted into the army, and after basic training in Fort Knox, Kentucky, I ended up at the Corp of Engineers Engineering School at Fort Belvoir. Geodetic surveying was what we did, which was a practical kind of thing to know about for when you're trained in architecture and so forth. In fact, while we were doing some of that surveying, we went out and re-surveyed old geodetic survey markers along the RF&P Railroad from Alexandria, Virginia, down to the triangle. We did lines around Mt. Vernon and places like that. That was sort of interesting, and plenty of train watching and so I was very amused. This past October, we spent a few days in Washington and rode the Metro down to Springfield and saw the site that I had walked over many, many, years before. Anyhow, after I got out of the army, I stayed in Washington for a year. I worked for an architect.

ZS: So you were trained at Belvoir?

JW: Just in what they call the engineering school. It was sort of intensive training and surveying, like construction surveying, geodetic surveying, whatever. We happened to be in a very small unit, and the intent of our unit was to train to eventually go out and survey missile sites and things of that sort, but we didn't have any of our special equipment for doing astronomy and that kind of thing, so we picked up these other jobs through the (indiscernible 00:05:00) of geodetic survey.

ZS: You never actually went out to the missile sites they trained for?

JW: No, I never did that. I think the unit continued for a while, but of course, when I got out, I pretty much lost track of all that. While I had been at MIT, I applied for a Fulbright scholarship, not only to go to Finland, and one reason I picked Finland, because there's interesting Scandinavian architecture. Sweden and Norway, I don't think were in the program at that time, and you didn't have to learn Finnish; it was too difficult.

ZS: How did you get interested in Scandinavian architecture?

JW: I'd seen it in school, people and architects or students that had been over there to visit and photograph buildings and all that.

ZS: Aalto wasn't still there when you were there?

JW: Yes. Aalto was in Finland. Yes.

ZS: In Finland. He wasn't at MIT

JW: No. I had applied for the Fulbright using a portfolio of work that I'd done both at MIT and at Cornell, and I was awarded the Fulbright, but unfortunately, being drafted into the army, I had to give it up. They can't postpone them, but they just said well, when you get out of the army, just reapply, which I did, just sent the same stuff back in, so I did get the Fulbright. So in '56 I went over.

ZS: What was the name of the architect you worked for in Washington?

JW: Charles M. Goodwin. He had an office right downtown, a very small office.

ZS: (Inaudible 06:51) kind of work?

JW: He was doing some housing work involving some fairly sophisticated prefabricated house system. In fact, he did some school additions that way, and that was mainly the stuff that I worked on, just for that year. He was doing some private homes and basically small structures, but he was serving like as an in-house design source for a major prefabricator of timber structures, timber houses.

ZS: Let me just ask you this, since I do have this section on Washington in the mid-'50s.

Coming from Dayton and Cornell and MIT, did you have any particular impressions of the city when you first arrived or while you lived there?

JW: Yes, I'd been to Washington before as a young child visiting distant relatives and so forth, but when I was in Washington, mainly in the army, I had many friends in Washington, so that colored very much what my activities were. I'd met these people through international folk dancing. I'd gotten into that just as I was finishing up at Cornell, and I continued it in Boston at MIT and made the connections with a great folkdance mafia in Washington. So I had a whole building, sort of infrastructure of people to deal with and to go out with and all that, so while in the army, I spent lots of evenings in the District. Just take the bus in to go folk dancing and that kind of thing. I would go out, do a little rock climbing, whatever.

I was always impressed by Washington, the place with all the trees and the low buildings. When I was there, at that time, they still had the streetcar system while I was in the army. They still had the streetcars in Baltimore. I went out in my spare time and rode around, explored those things, including relics like the old Washington and Old Dominion Railway which was terminated in Rosslyn, Virginia. I got to know a lot of the infrastructure around Washington, and the museums and so forth. I liked it. Good years and good friends in Washington, who I still have contact with, that is, those who have not moved up to Boston continue to meet with. Washington was a fun place to be. Climate

was a little tough, but that was all right. Then too, it was close enough to Boston that I could take the train up to Boston, mainly to see my old folk-dance friends in Boston. I was very much wrapped up in that activity, which took a lot of spare time.

ZS: OK, so you get to Helsinki on the Fulbright.

JW: Yes.

ZS: In '56, you said?

JW: Yes, in the fall of '56. The Fulbright, the way it was set up was ostensibly to study architecture, so you had to sign up. It was for one year. You had to register at the technical university in Helsinki, which I did, and that's probably the last time I went in there, because what most architects did was work for an architect. There was sort of an organization in Helsinki that sort of monitored and took care of – you know, the den mother for the Fulbrights. That explains somewhat my interest in that I was still trained as an architect; I was interested in planning and public transportation. So they said well, why don't you go see a fellow by the name of **Leo Jacobson** in the Helsinki City Planning Department, who had spent a year on sort of a reverse Fulbright out in, I think it was University of Wisconsin, and married an American, actually.

He was in an office in the city planning department that was mainly dealing with master planning for the center of Helsinki, so he took me right away, because having a Fulbright

grant, you couldn't work for money, so you were cheap help, a volunteer. I worked for several months there in that office. He was going to go back to the United States because his wife, who didn't get along very well in Finland, decided that she was going back and he could come with her.

ZS: She was American?

JW: She was American, yeah. That if he wanted to stay married, he'd better come and move to the United States, so he went back to Wisconsin. Anyways, they were just forming this planning department to develop a rapid transit system for Helsinki, and so he introduced me to them, and then I just moved over there and worked for them for about three and a half, almost four years.

ZS: So you went on salary there?

JW: No, actually, during the year I had the Fulbright, I was a volunteer, and then they offered me the job to stay on, which I did. I stayed with them, and then the last year plus some change, I went back to the city planning department, just to get a little more variety of activity. Also, I had some differences of opinion about the planning of the metro system in Helsinki with the man that was running that organization. I said well, that's better for me to go to someplace else.

ZS: What were the issues?

JW: I think the problem was, it was a very small group. We did, I think, a fantastic amount of planning work with a very small group. The chief engineer was excellent, and I learned a lot of my railroad engineering from him. He was very good, but the director of the agency had been the director of operations at the transit system before that job, and he managed to screw that up completely. But being part of the old boy network—

ZS: Operations of the circuit?

JW: Of the tramway system, the streetcar system and bus system. They had to find a job for him, so they decided to put him in the subway rapid transit planning office, which was a big mistake. I think he has problems. He had some delusions of grandeur about Helsinki and what it should have as a rapid transit system. I think we wasted an awful lot of time studying very complex, large networks involving underground streetcars, underground metro trains, sometimes mixing them up. I was keeping up with the foreign literature at that time pretty well and did some travel, like to Sweden, to Germany and Switzerland and Norway, and so forth. I got a letter from the office I could use, and used the old boy network in Europe to make connections with, so I knew what was going on elsewhere. I sort of felt that it was getting out of hand and thought it was better that I would move on and go to the city planning department and get a little broader background.

ZS: Could you give me some perspective on what was going on in Europe? Because I know in North America, there's this sort of hiatus in the 1920s and then in the thirties and forties, it looked like rail was dying, and then (indiscernible 00:15:07) goes up.

JW: Yes. Right.

ZS: Out of nowhere. Were things more continuous in Europe?

JW: Of course, the war stopped a lot of projects right in the middle, and I think as soon as the war was over, of course you had a tremendous amount of reconstruction activity. But while they were doing that, basically, there's a lot of bomb damage and so forth. They had opportunities to plan, provide rights-of-way for improved light rail systems and for rapid transit and that kind of thing. Railroads were getting back into electrification, which had actually started back in the twenties in France and Germany, and in Switzerland, even earlier. And of course, in Scandinavia as well, at least in Norway and Sweden, so there was great expansion of the rail system.

What I found to be interesting, and I was most familiar with, was the work in Sweden, which of course was neutral during the war, didn't have reconstruction to go through. I used to follow the Stockholm system quite closely. We've made a lot of visits to there, where they were developing the city and the metro at the same time. There's a very typical Scandinavian thing of the major cities acquiring real estate beyond the old core city area. In some cases, they were different jurisdictions, and they were annexing this territory into the city and planning all the new development for suburbs for industrial areas, housing areas, commercial combinations of all of those, and planning the transportation at the same time.

ZS: Why were they expecting or designing the city to grow so much?

JW: I think the Swedish have had a tradition probably before the war as being a magnet that appealed to the people from the country. That's where the jobs were and because all the cities—I know Helsinki and Stockholm also were having tremendous housing shortages, and even up into the fifties. It was tough, so they were building new housing as fast as they could do it. In Helsinki, I know they annexed huge areas. They'd buy these big estates, big, big farms. When you own the land, you can control the land. You control the development much better than going into sort of established areas. They were older communities and neighborhoods and wood house areas in the timber house areas that have remained, which is very nice because some of them are quite charming.

ZS: The cities would both annex the land jurisdictionally, and purchase it?

JW: Yes, so that they had the political control as well as owning the property. Yeah, that made it easy. I had two that were getting into redevelopment projects in the central cities. In Germany, where I visited on several occasions, it's just vast, open areas, thanks to their own doings and the impact of the Allies' efforts. They found it desirable to expand the public transit systems, though in more recent years, they've been building a lot of motorways and quite extensive systems in urban and suburban and inner city.

They've still continued to put major investment into transit improvements. Although in Germany in more recent times, with the reunification, a lot of the federal money has had to go to Berlin and to Dresden and Leipzig and places like that that needed help economically. It's been a very continuous process. Germany, of course, had the

extensive tramway systems, which they've kept, and they've upgraded in most cases.

Some cities like Hamburg decided it's more stylish to get rid of the streetcars, because they were building out the rapid transit quite extensively.

ZS: So Europe never gave up on rail the way that America did?

JW: No. Not at all. No, because in America, the light rail systems lasted through the war, and that was it. By that time, they were pretty run down, and the diesel bus came along, and you had the whole episode with the National City Lines and the puppets of General Motors and Standard Oil and the tire companies. They went in and took over rail systems and very often, they sold off resources, land resources, rights-of-way, things of that sort and just put buses everywhere. I don't know if you've ever seen the movie *Who Killed Roger Rabbit*. That's the classic demise of the Pacific Electric. That's the whole story.

ZS: (Indiscernible 20:33)

JW: I need to get a glass of water.

ZS: Yeah. Let me pause this. OK. We're back. So we're in Helsinki. Could you tell me a little more about the exact nature of your work there? When you say you were planning routes, were you doing traffic modeling?

JW: That whole traffic modeling thing had not really grown the way it was developing in the United States. They were doing forecasting, but based on a lot assumptions, like from the

planning department, as to where development was going to occur in the suburbs. So they knew pretty much here is going to be or is an industrial area. It's going to expand to a certain density. The housing, same thing, high rise housing, low rise, open space that will be left. So a lot of these new suburban areas are a reconfiguration of the older suburbs were pretty much known.

ZS: Interesting.

JW: At that time, that made it easier.

ZS: There will be 15,000 people within a quarter mile at a specific place and period.

JW: That's right.

ZS: That's all the housing that there's going to be, and you would want.

JW: Right. Then in the central city area, there were certain large areas that they wanted to develop into higher density. I went there in '61, and they're still debating about some of these areas, although they finally made up their mind when some of those projects. Just when they're in the center of the city, there's so much focus on them that it's very difficult to get everybody to agree on how to move, but they are moving at last on some of that. Just based on forecasts of jobs locations and housing locations, they were able to do some estimates of what the traffic would be. Of course, they had to do a lot of assumptions

about automobile ownership, how was that going to affect things, and highway construction and all that. I think that made that part of it easier.

They had to study, though, how to – they had some definite suburban corridors where they knew eventually that they wanted to do things – and then how to bring the things through downtown, whether it gets integrated with the light rail system or it's a separate system. There's a number of the German cities, the smaller cities, were putting all their effort into upgrading the light rail systems. Instead of just streetcars running down streets, they provided their own lanes, in some cases grade separation, underground, some use of rights-of-way along railroads, though not really so much of that. You know, the bigger cities got into rapid transit. Nuremburg was a new one. Before the war, Berlin and Hamburg really had the rapid transit systems and they were starting to build something in München but that died.

The suburban railway systems were quite extensive in Germany, and those, of course, as they became electrified, became more and more like rapid transit lines, particularly when they started to put them underground. Like in München they have the east-west underground railroad line, and then a similar system in Frankfurt, where they had the stub terminals for those long distance and suburban trains. While they were building the tunnels in between, the suburban trains could run through and connect networks on each sides of the city together. Stuttgart, they built a whole new railway tunnel and they – it really was to integrate fare systems and all of that, so you could easily have a seamless ride from bus to tram to suburban train.

Sometimes, they thought about the routes. Who gets the best route through town? I think in München, there was that debate. The tramway system wanted to have their line, but the railway wanted it on the same street, and the railway being the state railway, they won. But they managed to integrate the planning of those systems so you weren't getting duplication. I know in Stuttgart there are areas where they built out the railway service and cut back what some of the (indiscernible 25:36) ideal plans for the light rail system so that they get the optimum system in place in terms of travel time and economics of the operation.

ZS: Well, speaking of economics, how were these European systems financed? Did they have this idea that it should paid out of the fare box?

JW: No, really not, no. They depended on funding from the taxpayers, at least for the capital investments. And sometimes, that was quite separate. That is, the city would – one department or agency would be responsible for planning and constructing the infrastructure, the tunnels and bridges and major civil engineering doing structures. Then the transit system, which is usually public owned, or maybe ninety-nine percent public owned, would come up with the financing, again with subsidies, for the track, power system, signals, maybe station finishes, the rolling stock, and that kind of thing. A lot of that still goes on. They depend highly on funding from the cities, from the province or state, and from the federal government.

ZS: How did you get involved in Washington again? We've talked off the tape about your articles that (indiscernible 27:19) 1960 congressional hearings.

JW: Right. Yeah, the story of coming to Washington is I'd followed in the trade magazines what was going on in Washington. In fact, it was just before I left Washington to go to Finland is when they announced the formation of this whatever that big transportation planning.

ZS: Mass Transportation Survey.

JW: Yes. Right. Planning the highway system and possibly a rapid transit system to go with it. I sort of kept up, knew that that was happening. I knew eventually that it would be nice to come back to the States and take the knowledge that I had been gathering in Europe back here and make some use of it. Meanwhile, I got married to a Finnish girl.

ZS: Were you speaking Finnish by this point?

JW: Yes, Finnish and Swedish, enough to get by. I don't write either language very well, but I can read. I read Swedish very well, much like reading English, but I probably speak Finnish better. Well, the Finnish would say I speak it like a horse.

ZS: And your wife grew up speaking Swedish or Finnish?

JW: Swedish and Finnish-speaking. The people I worked with, though, were often a mixed bag, it being a bilingual country, even though the Swedish percentage is very small. I worked with a number of those people, so you just had to sort of learn both languages at the same time. Also, I continued my folk-dance activity over there, so I was teaching international folk dancing and learning Finnish while doing that. Practical application right away, so I had a very unusual vocabulary. I was good at the folk-dance terms and railroad language and all that. My limited knowledge of German and French is largely railroad terms.

ZS: So you're thinking of coming back to the States?

JW: Yes. I'd heard that there was an American planner coming over to give a lecture on planning in Washington, D.C. for the Finnish (indiscernible 00:29:42) of architects. I remembered the name because he had given us a lecture at MIT when I was in grad school there, so I went to the lecture.

ZS: Who was that?

JW: Fritz Gutheim, Frederick Gutheim. He was acting as the staff person for this joint Senate-House committee for the Washington Metropolitan problems. So I talked with him and after that talk that he gave and he said, "Well!" He could use some help, so I wrote a couple of papers. One, which was this coordinated planning of transit and suburban development, then the other was more oriented toward where do you put rapid transit? How do you build it? Do you build it with highways, railroads, or that kind of

thing, but they were both related subjects and drew a lot on the experience, things that were what we were planning and talking about in Helsinki about what was being done in Oslo and Stockholm, Copenhagen. I knew more with the Scandinavian stuff because they were close by and easier to get to.

Anyhow, when I finally decide, well, it's probably a good time to come back to the States, having been five years in Finland, I wrote to Fritz. This was in, say, summer of or early '61. I think it was during '61. It was during the tail end of the Eisenhower Administration that the NCTA was formed and started business with sort of a lame duck administrator and all of that. He put me in touch with that agency and gave them a recommendation, gave them copies of my papers.

ZS: During the Eisenhower Administration?

JW: Yeah, that was during '61 that he talked with those people.

ZS: Well, Kennedy was inaugurated three weeks into '61.

JW: Yeah, let's see. That's right, the agency was formed, then, in '60. That's right, it was '60.

ZS: The tail end of '60?

JW: The tail end of '60, and so in '61 they were gathering staff, and I keep forgetting how those dates worked. Yeah, it was during the last few weeks of the tail end of Eisenhower,

then they started, and it took a while to build up staff. The fellow at NCTA that became my contact was Bob Keith, who was originally from the Boston area, actually. He was their chief planner for that group. I was hired sight unseen, based on the papers that were published in the record, not even any phone calls. I think they just wrote a letter.

ZS: But you were still in Helsinki?

JW: I'm still in Helsinki, yes. We decided what was a good date when I could show up, and it was like in September of '61 that I went over there.

ZS: I'm not sure there were any rapid transit planners in the United States at that time.

JW: Yeah, that's right.

ZS: There hadn't been a new system except for Cleveland's little area there hadn't been a new system since the twenties. I talked to Keith on the phone, and I guess his background was highway (indiscernible 34:09) and Wilbur Smith crowd.

JW: Right.

ZS: OK, so you were bringing in some rail experience.

JW: See, there had been these big studies, like the Mass Transportation Survey. They were always the acronyms, the BATS and the PATS and all these. Like Pittsburgh Area

Transportation Study and all these big, big things that were going on that were starting to use computers to develop land use forecasts and traffic forecasts, but basically for highway systems, but they had to take transit into account. A lot of the people that were coming into that agency, either to work there or as consultants, were of that ilk, the big transportation studies.

ZS: So you show up in September '61, and you report to Keith?

JW: Yes. First, I did end up working in Vern Garrett's department, which was like the engineering, or he was a head of engineering. But that was a temporary arrangement as Bob Keith was getting his group together.

ZS: So you had had some experience in that from the army training.

JW: That was really more in survey. That was all, but it was basically my on-the-job training in Helsinki that gave me the railroad engineering side of things, and just traveling around and looking at things. Met a lot of people, all the officials of the other transit systems through the old boy network, and I'd always get a free pass, the perks. I just picked up a lot of knowledge through that, like the Swedish stuff. I could read Swedish pretty well by that time, while I was there, that I could get the Swedish planning magazines and keep up with things there. Stockholm was always sort of our model, or my model.

ZS: Your model.

JW: Mine.

ZS: Because I guess Garrett's model would have been the B&O Railroad.

JW: That's right. He was a B&O man, yeah. He had a learning curve to go through to get into the transit thing. They, too, had a very small group of people. I was sort of temporarily attached to them and got through sort of some odds and ends, but at that time, they had a fellow who had retired from the Chicago Transit Authority.

ZS: Stanley Forsythe?

JW: I guess so.

ZS: Stanley Forsythe was hired – I'm trying to remember his title, but he had this idea to do either underground buses or hybrid vehicles in a Chicago-style loop.

JW: Yes, okay, Stan Forsythe. That was the one. I'm not sure exactly what his title was there, but he was in a major position. Being from Chicago, he was entranced with the loop as a rail system, or by some other vehicle system like the bus train kind of thing. So he'd keep coming with draw this loop – everybody looked at the old transportation study, which had two lines crossing in this area of the city, then going out in various directions. That certainly had deficiencies in how it served downtown. One of the emphases that Keith wanted to put on the thing is to try to work out a system that gave better access to

existing or proposed employment activity, both private and public in the central sector zero, we called it, the real core of the District plus Rosslyn, Pentagon area close by.

ZS: So the 1959 system would sort of dump you on G Street –

JW: Yeah, did not have very many stations downtown.

ZS: – but didn't have any kind of distribution.

JW: Not really, other than at a handful of stations.

ZS: It seems to me that there's something, the philosophical change. That is, the '59 system was really a system for the suburbs to get them downtown.

JW: Yes, to a few points downtown, and then you're on your own.

ZS: Under NCTA, there's more of a sense of we're going to add in a more urban function of getting people around within.

JW: Yes, because the downtown is big enough, especially when you throw in Rosslyn and Pentagon and other neighboring areas. It was felt it would be desirable to get whatever the system was, whether it was two lines, as the old one, or maybe a third line through downtown. In fact, we started studying three lines that would cover downtown and then a number of the suburban branches. They did a rough cost estimate on that, and they

found that the cost was coming way up over a billion dollars or something and wow, this is too big a system.

ZS: A billion dollars was kind of the cutoff?

JW: Yeah, so we started to look at basically two trunk lines for the city, and I spent a lot of time working with the DOT map of proposed employment and other activity in the city center. We had certain suburban corridors that could float around a little bit, one up the B&O railroad, and something going up towards Wisconsin Avenue, up that direction, and probably a couple branches in Virginia and all that. And there were a few points where these things could come into downtown, and then, how do you deal with it in that area?

ZS: What determined those points?

JW: A lot of it was existing right-of-way, like the B&O railroad coming down into Union Station and perhaps use of other lines as well. The service down to Southeast, that floated for a while, but basically, getting across the Anacostia River and coming in through Capitol Hill area on the south side of the Mall, at least that's where you'd go if you kept going. Then from Virginia, there were the thoughts of another bridge down where all the bridges are, where the railroad bridge is and all that. But there was some worry about whether the fine arts and other people would let them build a bridge there, so we looked at tunnel solutions further up river so that the East-West Line would cross over somewhere near Rosslyn and then could split, one branch going west along the I-66

Corridor, the other going south down to the Pentagon and then to Alexandria, following the RF&P Railroad.

There were some natural corridors that you could treat studies of those corridors almost independently. Then you somehow would plug them all together into something downtown. Through the exercises that I was doing, I found that I could get – a two-line system served almost as many destinations as a three-line system. I'd got such a good two-line system that the third line didn't add much more because it'd cross the other two ,and the third line is that line that goes up the north to what? Gallery Place, is it?

ZS: Yeah, what's now the Green and Yellow. There was something. I found an August '62 memo that you wrote saying, "It is not possible to make one route such as the North Central route serve adequately the built-up area within D.C. and the longest suburban corridor in the region along the B&O Rockville line. I think this is the only reference I have to this North Central route.

JW: Yeah, and with the two-line system down there, it would have been a branch branching off of the line that went out sort of Connecticut Avenue, go up to Columbia Heights, and then could go up and pick up that corridor, the line that goes out to Greenbelt.

ZS: Yeah, so let me get this straight because this is important. The line goes on the map. It goes off the map. It comes back and goes a few times.

JW: Right.

ZS: The DOT maps you were getting, these were Tom Deen's maps?

JW: I'm trying to think; the source probably was the planning commission that had done a lot of predictions of where they thought that more development could happen, so it was the NCPC. They furnished that stuff.

ZS: The NCPC gives you projected employment and population figures?

JW: Yes. Then of course, there was a whole venture. Tom Deen's operation was dealing with the projected volumes, pretty much on the branches, on the routes that went out and knowing that somehow, they would muddle their way to downtown. They were doing in conjunction with the highway planning function.

ZS: So Deen's job was to project the volumes?

JW: Yes, on both the rail system and the highway system.

ZS: Your job, then, was to draw a hypothetical system for him to test?

JW: Pretty much just in the downtown area.

ZS: Just in the downtown area.

JW: Yeah. So he had to make the assumption that there was a black box downtown that somehow would get people where they wanted to go, but it was trying to get those at the peak load points, sort of what that flow would be, assuming that people would come in. Some people would be riding through, maybe transferring to another line, going out on another branch, and they had to develop the whole park and ride thing. They had to do a lot of sort of pioneering in that area. The feeder bus network, they had this Project Centipede, they called it, which was to come up with ways of forecasting volumes on the trunk line, based on various having parking available, kiss and ride, the drop-off/pick-up function, buses and so forth.

I know they did other things, like as part of their forecasting they had (inaudible 46:18) Tony Newcomb working on the downtown parking situation and the cost of parking and do predictions of that. As time grew on, the cost of parking was going to go up, and they never believed him that it was going to go up and up and up. Nobody would believe him. They thought he was cooking the numbers to help the transit. Turns out that he was very right.

ZS: Who was that?

JW: Tony Newcomb was his name, Anthony Newcomb. He was there a few years. He's an economist kind of guy. He's also a farmer, and he decided he liked farming better and then he left. Stolzenbach was running the show.

ZS: One of the impressions I've gotten is that there were sort of a bunch of engineers and then Stolzenbach had his economists looking over the (indiscernible 47:13)

JW: Yes.

ZS: So Newcomb was one of Stolzenbach's economists?

JW: Let's see, who was in there. There was **Ralph Reckle**, who was I think a consultant. I know he stayed in the office, but whether he was on his own, serving as a consultant or as a full-time employee. There were several others, and they were working with – oh, let's see, who was running? Tom Deen had did traffic but there was another fellow who's name escape –

ZS: There was Keith. There was Rannells.

JW: Yeah, He was architectural stuff. I worked with him a lot.

ZS: I wonder who else would have been doing –

JW: There was the economic on the side of –

ZS: Goldenthal was one of the economists. I'm not sure which other people. What was this person's job?

JW: He was I think leading. I think Tony Newcomb worked for him. It was Betty. What's his name? **Coldrusher** Let me think. She worked for us. We had a fellow by the name of **Joe Ong** as a consultant. He helped out on scheduling, working out operating costs and that kind of stuff. They were sort of all lumped together in this planning venture.

ZS: Who was running it?

JW: It was Bob Keith.

ZS: Keith was.

JW: But Keith left, you know. He was only there while I was there, for a couple of years. But he came up to Boston, and then he brought me to Boston later on. They had the forecasting. They were doing a lot of stuff. They had this traffic research corporation as consultants. They were out of Toronto. They were doing a lot of the forecasting, the land use, and there's a mixed bag of consultant and staff people doing this stuff, because they kept the staff fairly small. I think the maximum full-time paid staff we had when I was there was like seventy-some people. Then later on, there was a reduction in force where they went down to one-half that amount. That was when bad times were – we'll go to that later.

ZS: What happens is, the '62 November report does not look very much at all like the 1959 report, and I'm trying to understand. I mean, it sounds like you were sort of starting with a fairly blank map.

JW: Yeah.

ZS: What exactly was your title at this time?

JW: Oh, that's just planner, but I had a very sort of a special status because though I worked for Keith, or nominally for Tom Deen, I really ended up reporting to Darwin in the real world.

ZS: I want to pull out some of these sketches, because I mean, these are sort of the only hand-drawn sketches I've seen from that era. It almost looks like you were starting out with this map of the city street system and just a bunch of crayons –

JW: Yeah.

ZS: – and doing what you felt like. You had the DOT maps. Did anyone tell you what your mission was? Did anyone tell you oh, we have to serve this area?

JW: No. I think the basic thing was to just try to get a system with two or three lines that would serve the maximum amount of activity, following certain standards for curvature and trying to stay under street rights-of-way where possible. I know the early studies, from a technical side, were talking cut and cover subway. It wasn't until later on that they started getting to the deep tunnel thing. I was one of the promoters of deep tunnel operation.

ZS: From Stockholm?

JW: Yes.

ZS: How was Helsinki built? When was Helsinki built, I should ask?

JW: Oh, it took a long time after I left there before they started breaking ground, and they have really one line with some branches. It's been very slow processing there; finance has been (indiscernible 52:05).

ZS: And when did Stockholm actually start?

JW: They actually built some of their first line before the war, a piece of it, and it was run with streetcars. They had built a number of suburban extensions to the streetcar system that were, in effect, proto-rapid transit. They were grade separated and all that, but they were just using streetcars. It was right after the war, I think in '52 was a major year for them. I think they opened their first true rapid transit line, which was two pieces that didn't meet. They had the hard part to do, which was downtown. One had been built before the war, but they did put subway cars on that.

ZS: While you were in Europe, they were thinking of doing this granite blasting construction?

JW: Oh yeah, they did. That was very common up in Stockholm and places like that. But then in Washington, I remember from the first studies, they had some of the big consultants come in, and then they had some of these cut and cover subway things built seventy-five feet down, big holes in the ground.

ZS: A seventy-five-foot cut and cover?

JW: Yeah, and seventy-five-foot tunnels are hard to do. I don't know. Not where I come from. Tunnels are no big deal. Then later on, they did a lot of tunnels up in Northwest. I was one of the first ones to draw some alignments and profiles for getting out to the Northwest, coming up and cutting through over to Wisconsin Avenue.

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ZS: You had those technical specifications of curvature and cut and cover construction.

JW: Some ideas, station spacing, and lot of things I based on like, a five-minute walking circle, around 1,250 feet. That's five-minute, and then that's ten-minute circle.

ZS: Because even Downtown Washington, the stations are fairly widely spaced, compared to, say, Paris.

JW: Yes. That was a compromise, sort of, too, in terms of cost versus (indiscernible 00:40). And also, with curves and stuff, there are little places where you can turn certain corners.

ZS: Right, and Paris has the shorter cars and tighter curves. So were you being told this is a suburban system; we're going to want big, long cars?

JW: They had pretty much committed themselves to that because they were following sort of the BART example. The other line that was built in the States early from Philadelphia over to the South Jersey—

ZS: The Lindenwold.

JW: Lindenwold Line. It was modeled after that, and I felt that that was certainly a reasonable thing, considering that the distances that we were going to have to go to get out into the areas where people were moving to.

ZS: I just want to clarify —

JW: You had to try to do two things at once, and one interesting thing I did (inaudible 01:37) and I don't know if it shows on any of — yeah, here's one I was getting a little more adventuresome, going under buildings and stuff. It was a way to get a station here that might be easier for making transfers.

ZS: This has got a transfer station, looks around 15th Street?

JW: Yeah, but I think this line came up here and this came down.

ZS: I just have to get this on the recording, what we were talking about. This map is labeled, Special Close-in Government Garages is the caption, but it shows a line going from the Pentagon via – this is D Street?

JW: It sort of skips between – it cuts a little cross-country through here to get over to the Union Station.

ZS: Coming down to Union Station sort of going through the White House and then crossing a line from Connecticut Avenue down to the Southwest Mall.

JW: Yeah, I did several schemes.

ZS: This has the various places.

JW: Yeah. I had sort of like three basic concepts here, some of which are shown here. Those probably never got fully documented. But you see there is, coming down Connecticut Avenue, turning to the east on, what was that?

ZS: Ninth Street.

JW: – Ninth Street, and then down here, down 12th Street. Yeah, coming down 12th and then turning this way. My sort of idealized system was from the northwest through downtown, south of The Mall, and then down straight to Virginia. It's sort of shown here in a stylized way.

ZS: Straight to Anacostia?

JW: Yeah, Anacostia, and then eventually to the east, Benning, in that direction.

ZS: Pretty much a route that would go from northwest to southeast.

JW: Yeah. Then the other diagonal was coming from the B&O lines, Silver Spring and that area. Though this line always, at that stage, was following B&O all the way up to Rockville and possible other – the other branch, the highway corridor that was going to be developed out into the Northeast. But this would go to Virginia, coming to the Pentagon and below and beyond, and at some point, branching off to go out to Arlington County out into Fairfax. I thought the crossing system would encourage the through-riding, as people would not have to transfer coming, say, from Silver Spring and that area to the Pentagon. They'd have a through-ride. That was one concept.

ZS: If I understand this, the tension there is between wanting those through-routes and wanting to have balanced levels of service on different –

JW: Yes, and the way that – the line up to Silver Spring and the line to Virginia had more or less equal volumes, so that made a good combination. Then the Connecticut Avenue – Wisconsin Avenue corridor and southeast had maybe two-thirds of the volume of the other system, but those two branches balanced very nicely.

ZS: I wonder if those numbers just changed between then and the later sixties, when they decided to connect Silver Spring to –

JW: I think that was an artifact of the stage, how things went on while I was still there, and then when I left, when they thought about shrunken down systems. This was sort of a minimal system. Too bad they didn't put dates on these things.

ZS: Yeah, I think some of them have dates. It looks like some of these were from actually after the November report.

JW: Yes.

ZS: From '63.

JW: Yeah.

ZS: I don't know why I wrote circa 1963 on these. I might have had some documentary evidence just from the order of the papers. So, let me guess at it. You were working on

the November report. The November report comes out, and then you keep sketching these alternate systems.

JW: Yes. Now, the November report system – let's refresh my mind here. Yeah, what happened in the downtown planning is reflected here. This was '62. My favorite system was to do this and to do this.

ZS: To have through-routes (indiscernible 00:06:44)

JW: Right. That was heavy-heavy, and this is medium-medium connected together. Then at some point, we had a political lobbyist. I forget what his name was.

ZS: It would have been **Perlman**.

JW: Perlman, yes. He used to pay visits to us, to the politicians up on Capitol Hill, and at some point, this conversation came up and he said, yeah, just think of a station here.

ZS: Here at Capitol?

JW: There. Well, the schemes that we had been playing with before didn't have that. They had this and they had this.

ZS: The one line along Independence Avenue.

JW: Then suddenly, you had to get something here.

ZS: And another one going – yeah.

JW: Which meant that you ended up probably connecting the wrong legs together and had to balance things out. Well, that's what we knew at that time about things. Here, we had a system where we got this massive transfer station here. In order to balance the loadings on the four, coming in from the four corners, we had to make a connection here.

ZS: Between Union Station and the Municipal Center?

JW: Yeah, so that certain trains would run this direction to get even loading. You know, just a lot of that kind of thing. We find that European systems don't do that. BART has a little bit of this (inaudible 08:29) kind of stuff over in the East Bay Area. (inaudible 08:33) This is one of the problems of that loop concept is you had everything together, so you had a foul-up someplace, the whole system dies, and that's the disadvantage of these kind of connections. You've got to coordinate the schedules to make that all happen, because one of the schemes here—well, here was one that went this way.

ZS: Along D Street.

JW: Yeah, and just continued to the east. This, I think, was an idea that the rapid transit up to Silver Spring would come through that central corridor and then pick up the right of way eventually.

ZS: Off the Columbia Heights branch?

JW: Yeah.

ZS: This scheme here, future extension along the B&O."

JW: Yeah.

ZS: It's interesting because it seems like the two most constant lines that I've seen sketch after sketch, not just yours, but into the 1960s, there was always something along G Street.

JW: Yeah.

ZS: And then Union Station, of course, was in the Act of 1960. You have to serve Union Station.

JW: Yeah.

ZS: And then with that, once you're going to serve Union Station, almost every scheme says let's serve that B&O route, because we can get people from Montgomery County into the edge of downtown Union Station without building a tunnel, so that's too good to pass up.

JW: One scheme I had, and this may illustrate it the best – this was showing you that it's an abbreviated system, just pretty much within the District and plus this adjacent area of Virginia – was a concept where you had the east-west line going this way would connect to the railroad, and you would develop an electrified commuter rail system. Now, they already had the electric operation of the Pennsylvania Line.

ZS: This is the Pennsylvania Line, which now are the New Carrollton Line?

JW: Yeah. And electrify the two B&O lines, eventually, and electrify a portion of the RF&P and the southern downtown in Virginia, and operates through downtown as a rapid transit, but there would be big electric trains with lots of doors. It'd be like the S-Bahn systems in Germany, the railroad rapid transit.

ZS: So how different –

JW: Which would have a high-voltage, overhead trolley system and run in a subway, run at frequent intervals. At least through downtown, you'd have very frequent, extremely frequent intervals. And then, the other line was more of a rapid transit-type line with more stations serving the urban area, like in the northwest down into the southeast area

and would be with third-rail subway cars. You could, over the years, upgrade these commuter rail lines to have their own tracks to be separated from the freight trains and passenger trains and that kind of thing. But it was sort of an incremental growth thing to reach way out.

ZS: Interesting. Okay, I think –

JW: That was during one of the times when we were looking at concerns about the cost of the system.

ZS: There's just something – I'm not sure I have it in my notes here – about the difference between urban lines and suburban lines, both in quality of service, level of service, and I guess you're talking about different technologies as well, but there would be some separation. It's very interesting. It was all so fluid in the early 1960s.

JW: Yeah. (Inaudible 13:03) When we saw we were in trouble, were having problems –

ZS: Before the report came out or after?

JW: I would say around the time, after the report came out. Yeah, because the report became the lightning rod for the Highway Lobby to really attack because the report called for eliminating a lot of pet projects, the **360 Bridge** and the Inner Loop, or whatever they call all of that stuff. We were in desperation. We were looking at different things.

ZS: So why (indiscernible 00:13:37) came out of that period.

JW: Of turmoil.

ZS: You knew the report was going to get you in some trouble. Do you remember who first told you it might be wise to start sketching smaller systems?

JW: No, and I don't really remember when that happened. That was really the full system, that October '62 drawing. It was really probably in '63, '64 when we were exploring some of these other options.

ZS: Because I guess it shows up on the record. In the summer of '63, there are hearings. I think at that point, Congressman Whitener starts talking about cutting off the suburban arms, later becomes the bill to have a bobtail system.

JW: Yes. It was the abbreviated system, and a lot of what we were looking at is how could we serve four legs with a single trunk line downtown that could be later expanded with a second trunk line and further extensions. So, this was a concept of a short system.

ZS: This was the bobtail system as it was written up in the bill, and then there are all these. There were about two dozen of these alternative bobtail systems. (Indiscernible 00:15:23)

JW: Yes.

ZS: How would you describe this, with the typed-up labels? Who was actually drawing these?

JW: I probably drew a lot of that stuff.

ZS: A lot of these, more technical drafting.

JW: Yeah, with the Pentagon, see? This was a thing that I introduced.

ZS: This is System 9B.

JW: This connection going via Rosslyn – with this little system, when you were trying to do this branch, a little branch there, two branches here, that you'd get very poor service on each of those branches. There are too many branches and headways in transit.

ZS: To have a crossing branch into Rosslyn and Pentagon, 9B you simplified it to have Pentagon to Rosslyn on the Virginia side and then one crossing, so you eliminate a branch.

JW: Yeah. It actually became an easier way to do the future branch out to the west, this way to turn that way. This is where I was getting in a deep tunnel.

ZS: So the idea was always to have a tunnel here. When you had this crossing, was this going to be a bridge crossing?

JW: No, that was a tunnel.

ZS: That was a tunnel. How come?

JW: I think with the aesthetic reason, the feeling that it would be difficult to tunnel or the approach, or the bridge and approach –

ZS: Many of these bridges were all very controversial.

JW: – would be difficult.

ZS: The idea is the only place you could bridge the Potomac was on the 14th Street between two other bridges.

JW: And we were doubtful about whether we could make that. Yeah, so that's why the system got built the way it was, but we did this. This is when I had convinced people that **rock towing** looked like a good way to do things. It would be easier if you just had four

branches, which is really this one, this one, this one up to Silver Spring, and not western branch. I'm not sure what we had in the early scheme. Probably something like this.

ZS: Which branch is that? Yeah, they are similar. This is the same one.

JW: Yeah. I don't know this one. That was not one of mine. Yeah, this line got up to (indiscernible 00:18:12). That was the –

ZS: Sixty-five report.

JW: This draft was December '64, so that was just before I'd left. This is what we had. We had three branches here, so I got it down from four branches to three.

ZS: On the western side?

JW: On the western side.

ZS: But you still have all these branches going through two stations along G Street.

JW: Yeah. We didn't serve this area south, the south side of the Mall at all. This is pointing to get up that way.

ZS: And then up pointing towards Wisconsin Avenue.

JW: Yeah.

ZS: As a planner, did you think this was a workable system, the bobtail?

JW: Well, I had a feeling it was a way at least to get a foot in the door. (Laughter) That was about it. It just didn't go far enough.

ZS: It didn't go far enough, but it also seems that once you added more suburban lines, the possibilities of a –

JW: And we had a design for the possibility of a future connection. This would have been coming up that way, but we made allowance for this line to come down through here and come and then connect up here one way or the other.

ZS: So this was the system that actually gets passed in 1965, and you're saying you could have put in a southwest Mall branch into this system?

JW: Yes. The idea was that you had to be able to add something in the future.

ZS: So not just suburban lines, a tram line as well.

JW: But add more capacity downtown, because at some point, you were going to run out of capacity, very definitely. These were sort of papers. It was the idea of, well hopefully, when everyone gets their act together that they're going to build more than this, which they did. What date was this?

ZS: That's the November report again, and you've got a system, plus this was the eighty-seven-mile (indiscernible 00:20:25) the November report.

JW: Right.

ZS: It's got this phantom line going to Capitol Heights.

JW: Yeah. That went over like a lead balloon.

ZS: With whom?

JW: Oh, the community. Generally, the neighborhoods, particularly black communities. You show lines out to all those rich suburbanites all over the place, and then the one area where we live, we got a dotted line. That caused a great deal of unhappiness. If there had been more dotted lines, then – you know, it looked like discrimination. Just that the forecast at that time, well, there's not going to be that much action out there.

ZS: This seems like a compromise, that if you'd been doing it purely politically, there would have been a line out to Capitol Heights, whereas if you're doing it just by the numbers, maybe not anything at all.

JW: And some other things might not have gone there either.

ZS: If we could get into the politics of some of this, because I have this one sketch, and I don't know if you drew this, or if Tennyson drew this. It says, "ELT, summer '62" and it's just a –

JW: Backbone.

ZS: There's backbone downtown, and along the Connecticut Avenue line. It says, "Political." This is intriguing.

JW: That was to get up the railroad there, then the Union Station, then a branch down there. This would be a future line. This would be that Greenbelt Line.

ZS: Do you have any idea what this means?

JW: I think he felt as a basic starter system, doing this kind of a line up the B&O, up to Silver Spring, was going to be a moneymaker. You're going to get a lot of ridership there, probably because of the way that that line crossed a lot of these radial highways, so it

gave a lot of opportunity for kiss-and-ride, park-and-ride, and so forth, which was what I was illustrating here when I did these sketches.

ZS: You drew those?

JW: I did all of those, yeah.

ZS: That's interesting, because these are what ended up as the 1965 report maps, and I look at these, and I say you got hit by the Highway Lobby in '63, so you draw this map where the highways are emphasized. Was that a conscious decision?

JW: Yes. That was also to show that people could get to parking garages. All those would be parking areas, and that this particular configuration made the best of a bad situation, and that it was able to intersect a lot of incoming routes.

ZS: So could I ask you why this 1965 report physically looks so different from the 1962 report? It looks like it was all done on a typewriter.

JW: Oh, yeah. It was low budget. This is after the reduction in force. They reduced the budget.

ZS: So you just have less of a budget to do the typesetting and the maps and everything else, fewer colors.

JW: Right. I did all the drawings in this.

ZS: You did?

JW: Yeah. I did that.

ZS: Very interesting, because I've been looking at this sort of from an art historical point of view, and if you were trying to say to Congress, we are a humble agency. We won't talk about highways anymore. We won't waste your money, what you do is you give them this low-budget report and sort of psychologically, as well as for practical reasons, you just didn't have the budget to do it.

JW: Did you notice I did show the railroads on here? I put the railroads on there, for whatever that was worth, more subtle. When the directive came down to see if we could do a system within the District, this is what we had to do.

ZS: And the directive would have come through Keith from Stolzenbach? You weren't dealing with Congress –

JW: I'm thinking of the directive to Stolzenbach from the –

ZS: From Whitener?

JW: Yeah. I think that's probably who it came –

ZS: You wouldn't have been dealing with Congress yourself?

JW: Oh, no, not at all. No, I was a backroom boy. I worked in the closet part of the time. I had a big drawing table and boxes of rolled up plans all the way around, and then Darwin would come in with various visitors and politicians, and I would say, "Well, this is where the work's being done." I would pull out these drawings. This was sort of an attempt to show that you could do something that would be viable, but expandable, both within the downtown and to the outer areas, because I think there were some fears that, were they ever going to be able to get Montgomery and Prince George's County, the state of Maryland together with the District, together with Arlington, Fairfax County and then Alexandria and all that to get this interstate compact that they thought that might take forever to happen. So, let's get something started and attempt to show that it could be a standalone system for a while.

ZS: Let me ask you a couple of specific questions about these maps that were on there. One is this map I have in color which has the blue east-west line, and the Brown Line and so forth. This and a couple others here show what appears to be a curve to serve Georgetown.

JW: Yeah, that's a little interesting bit of history, here

ZS: This is a question I get asked all the time, is why doesn't Metro go to Georgetown? Like, here was someone thinking that it might.

JW: I think originally, there were a lot of people in Georgetown that didn't want it. They sort of liked everything the way it was, not realizing that they would be choking in traffic within not too long a time. They didn't want changes in density. That's what they were afraid of, that transit would bring a big change in density, so we looked more. At Foggy Bottom, there was actually more activity at State Department and all that kind of stuff down in there, so that there was some interest to sort of come through the Foggy Bottom area and somehow cross into Virginia by various loops, either via Rosslyn or the older scheme, which came south of Rosslyn.

The Three Sisters Bridge – I think that's Three Sisters Island right there – in the '62 report, we had said no Three Sisters Bridge and no various other things. What happened was that, under pressure from the Highway Lobby and their friends in the House and Senate, we had to reopen the question of the Three Sisters Bridge. How do we get a bridge over to connect to 66? There were a couple of other highway issues that suddenly, from being a rapid transit planner, I became a highway planner, temporarily. I had to come up with a way to get the bridge to Rosslyn.

ZS: A bridge to Rosslyn?

JW: Yeah. This was for highway. I played around with it, and they were doing the planning as part of the Three Sisters Bridge to have the major highway come up along the waterfront, where the old gravel unloading facilities were, down where all these fancy hotels and stuff are today, opposite Roosevelt Island. We thought about some things in some brainstorming sessions and said well, gee, maybe if we cheat a little on the highway standards and not provide so many big ramps and made a few sharper curves and things like that, we could get a bridge more or less parallel with Key Bridge, keep away from the sensitive area upstream from Key Bridge and away from Roosevelt Island.

You could do a bridge there – I don't know if it was a four-lane bridge or a six-lane bridge; I forget – that depended for certain moves onto this waterfront highway, had to use Key Bridge to make certain connections. You'd have to get off the highway in order to keep the interchange at each end from being horrendous. But the problem's 360 Bridge, the bridge wasn't so bad. It was the connections on both sides of the river that were pretty horrid. While I was at it, I thought this bridge could work with a rapid transit line; you just put it on the lower deck. That may have been the source of the idea that got Rosslyn and Pentagon on the same line. They say, if you could do that later on, they said well, we could do a tunnel that does the same thing, which we did.

Anyhow, I did this plan, and the way that came about was, it had to be when Kennedy was still alive, because Kennedy had appointed a blue-ribbon committee to deal with the issue of the Three Sisters Bridge. I think the center leg of the Inner Loop was part of that and something that would replace, but in a gentler kind of way, the north leg of the Inner

Loop. I got involved in doing some of those studies. Other people were kicking in idea, but I came up with that bridge scheme and did a drawing of it and worked out a way, and by the way, I did the subway. The blue-ribbon committee had Connie Wirth, Conrad Wirth of the National Park Service, Walton, the fine arts—what's his first name? Bill?

ZS: Bill Walton. Yeah.

JW: Bill Walton. I think it had the head of the D.C. Highway Department, and I forget who that was at that time.

ZS: I think it would have been Tom Harris.

JW: That doesn't sound familiar.

ZS: Him or Aikin.

JW: Yeah.

ZS: Aikins?

JW: Yeah, I think he was on.

ZS: I'm trying to remember which order they came in.

JW: Darwin Stolzenbach was on it, representing NCTA, and there might have been an additional member.

ZS: Would Wirth have been on that? Because Wirth was with Park Service and then he moved up. Anyway, go ahead.

JW: Somehow, I got involved. I don't think I went to an actual meeting of that blue-ribbon committee, but we'd get that feedback from Darwin, and I'd play around, and then I'd get this idea. "Hey, Darwin, you know, this might work," and drew it up to scale and all that to show profile, plan, or how it looked like it could work if you're willing to allow certain moves to be compromised. Because Highway, you see, they don't want to give up their precious standards.

ZS: Because they were going to drive seventy miles an hour.

JW: So Darwin took my drawing to the committee. In fact, I think before he took it before the whole committee, he and I went together to visit several of the members. Aiken we didn't, because he'd be an enemy. But met with Walton. Hey, hot shit, let's go. And Connie Wirth, and I forget who else that they had met with. Then I think he took it to the full committee, and they said yes, let's go with that as a scheme. Meanwhile, we looked at that center leg, some ways to try to calm it down a little bit and make it just a little less

involved, and then we came up with a Florida Avenue or sort of a crosstown underground railway system with a minimum of connections.

ZS: Who's we?

JW: NCTA.

ZS: Okay, that explains a lot.

JW: We still had that highway planning function, because that was in the original. This was a rail rapid transit proposal, but recommendation for transportation. That was part of our function was to do that.

ZS: Well, that's how Stolzenbach interpreted the Act. Other people disagreed. But that's interesting, because I've seen that tunnel proposal for the North Leg, and it didn't seem like the brainchild of the D.C. Highway Department.

JW: No, it was very urban. It was just saying well, you've got interstate highway standards, but these are not interstate, though they may be part of the interstate system, which it's three conflicts of Bureau of Public Roads –

ZS: You were sort of working as an alternative highway department?

JW: Yeah, we were doing that. Yeah, I wasn't the only one.

ZS: With Howard Lyon, because Howard Lyon worked on the original Inner Loop for DeLeuw Cather.

JW: Yeah, I think he was involved and so forth, and I think I ended up doing most of the sketches, most of the drawings, although we may have had the draftsman draw up that stuff in fancier form.

ZS: This is fascinating.

JW: Oh, yeah, that whole thing was a subplot that went on.

ZS: I guess it's in the 1970s sometime, they finally canceled that off the map and transferred the funds to Metro.

JW: And then they built the bridge, actually, across Roosevelt Island, with the access bridge to 66.

ZS: The T.R. Bridge?

JW: Yeah.

ZS: The T.R. Bridge, wasn't that already pretty much mapped out by this time? It wasn't designated as 66 until later.

JW: Yeah. Anyhow, well what they did is eventually, the highway guys, they got control of the thing. It was given to the Highway Department and Bureau of Public Roads and others, and they plunked it back up the Three Sisters Bridge. Then it got croaked. It was croaked again, so they had to change the plan so that the Roosevelt Bridge became the major connection, plus connections to the other routes.

ZS: So your proposal here, and again, I'm assuming this is sometime in '63, but I don't have dates on a lot of these, the highway part would have involved some kind of minimal –

JW: Interchange here, yeah, because I used Key Bridge for part of that, part of the
(indiscernible 00:37:03)

ZS: Along what's now the Whitehurst.

JW: Whitehurst, yeah.

ZS: Downstream to the bridge. The subway part, wouldn't there have been a portal here, or what would have been happening?

JW: Yeah, it would have popped out. It would have been fairly deep under Georgetown and then come out low, but to get it on the lower deck of the bridge, because we didn't need to keep very much clearance above the water. You know, we had to worry about floods or something, but that was about it. That would dive into the hill here as a deep tunnel, and then it could go out, follow the highway alignment west. Or it could go whatever route that they ended up (indiscernible 00:37:42) going through the built-up areas there in Arlington.

ZS: When this scheme was rejected, did that kill the idea of a Georgetown station?

JW: Yeah, the Georgetown thing, this was just a possibility.

ZS: Yeah. It just needs a lot of (indiscernible 37:59), because I've been asked this question dozens of times in the past couple years.

JW: At that time there was still no serious interest on the part of the Georgetown people for the station.

ZS: Well, yeah. What I'm trying to figure out is, the legend is that the people in Georgetown killed the station. That's a little different from saying they didn't want it, because my impression is that – what Deen says is that there wasn't a great deal of reason to put a station there to begin with, because there wasn't that much employment or –

JW: Yes.

ZS: And then, he was talking about the difficulties of building this kind of a curve contrary to the street grid.

JW: Oh yeah, it would have been a lot of underpinning and expensive stuff. You had the C&O Canal in there and all that.

ZS: Yeah, okay, so it technically would have been very difficult.

JW: But doable.

ZS: But doable. Was there any consideration of putting a tunnel along this alignment so that you could have done it in the rock under Georgetown?

JW: I don't think so at that time. It wasn't very long that this bridge –

ZS: Yeah, okay, that's fine. I just have to get every detail I can out of you.

JW: And the rapid transit thing, I don't know how far that ever got out, because I left – or whether they just took it as a highway only, which quickly migrated up to the other side and then died again later on. Unfortunately, it wasn't NCTA that killed it. It was somebody else did.

ZS: Yeah. As it is, both Foggy Bottom and Rosslyn stations are quite deep, because it's already diving under the Potomac.

JW: Right. I think this would have had to be deep.

ZS: Deep.

JW: Deeper. It probably would have been a bored tunnel.

ZS: A bored tunnel through Georgetown, but then a bridge.

JW: Yeah, because there's a bluff there.

ZS: If you had wanted to do a tunnel under the river there, then it would have been impossibly deep under Georgetown anyway, right?

JW: Yeah, it would have been.

ZS: Because Rosslyn is so deep, it would have been deeper than Rosslyn.

JW: It would have been very deep. Yeah, sort of like some of these stations way up here north of Silver Spring, in that area.

ZS: Sorry to dwell on this. I just had this question I want to get, and none of this was written down.

JW: This was a rapid transit proposal. This may have been the only sketch I'd ever showed there, though, my drawing of the bridge had dotted lines showing possible rapid transit alignment.

ZS: Except for these two sketches, the only other Georgetown station I've ever seen is a Harry Weese map, when he gets hired and decides that he's going to redo the planning of the whole system.

JW: Oh! Uh-huh.

ZS: I don't think he knew very much about the constraints. You don't remember any details about who in Georgetown would have been opposing the station.

JW: No, we always just sort of ignored it, because it didn't seem to be the place we wanted to go anyhow. I don't think we ever promoted anything there, and I think the vibes were coming in from the community that well, we don't need it close to downtown.

ZS: The other somewhat legendary, highly-storied branch here is the Columbia Heights spur, which shows up both on the 1962 proposal and then again –

JW: Yeah. We kept it there.

ZS: – in the 1965 proposal. And the strange thing about that is it's in these two proposals, and then, in 1967, when McCarter wants to cancel that line to pay for the southwest Mall alignment, he goes before Congress, and he gives them voluminous evidence about how worthless this Columbia Heights spur is, without ever explaining why, if it was so worthless, it ever got into these two official plans. Do you remember anything about the origins and anything about that spur?

JW: No. In the work I did, I never really get involved in that piece of it up there that much. I know there were thoughts that someday, that line might want to come up and join onto the Greenbelt Line to relieve the Silver Spring Line of some of its traffic.

ZS: How would that have worked?

JW: It would have just gone through there, but it wasn't in this plan. I think this was our thoughts that someday, maybe it would happen, but it never was put on paper. But I think they felt that there was density here. There was a lot of density, and it was some way to sort of fill the gap between these and these lines on the east side of Rock Creek, sort of to do something for some people in the District. In '62, it had never gone up that way. It's funny; I just don't remember. It may have been that this old plan had had something up that way.

ZS: This is the '59 plan.

JW: Yeah, so it was an attempt to sort of provide something for people in there that would have been served here in the '59 plan.

ZS: Do you remember anything about how these considerations would have been transmitted to you? I mean, one of the big stories of transportation planning in general is how political economic considerations meshed with technical reality.

JW: Yeah.

ZS: Would someone have pulled you aside and said we need to do something for this area?

JW: Yeah, clearly Bob Keith, when he was still around, or Tom Deen, or a person whose name we can't remember who took over that planning function.

ZS: Not Bill Herman.

JW: Bill. Yeah, that's it.

ZS: See again, some of the chronology –

JW: Yeah. It would have probably been Bill. Yeah, or directly from Darwin.

ZS: Because Herman, my impression is he wasn't involved in route planning until Keith left.
Is that right?

JW: Right. He sort of had to take that over, because Bob came up to Boston to get involved win this big Boston regional planning project. Then later, Bob and a couple of other people in the Boston area put together the legislation that created the MBTA, made it a big regional body. So, yeah. It would have been Herman because I worked – I guess I was technically under Bill Herman.

ZS: After Keith left?

JW: Yeah.

ZS: So in '62, it would have been Keith who was giving you some policy directions?

JW: Yeah, and it's funny because this was sort of an obvious one.

ZS: These, Connecticut, Wisconsin?

JW: Yeah. Wisconsin Avenue seemed to be a way to cover both of those locations. This was always sort of there, and to me, it was a nonissue. It could be in or out. It became an

issue when we were worried about this minimal system of having too many branches. I guess its presence helped me make that change. One of the reasons for this change of coming via Rosslyn, too, was that in thinking of a bigger system, that people who had come in, say from the I-66 corridor, who wanted to go to Pentagon and vice versa, and the other development that was going to happen around the Pentagon area, to make their transfer in Virginia. They didn't have to come all the way into D.C. and transfer and come back. They could stay in Virginia.

ZS: You probably would have done it on the '62 map if you had thought of it, right?

JW: Yeah. It didn't come up until later.

ZS: I know this was done in a big rush. Looking back, there's no reason why.

JW: It may have grown out of doing this highway stuff that I made the connection. I said oh yeah, well, why don't we just run it down that way? From what we knew of soil conditions, rock conditions, and so forth, yeah, yeah, do a rock tunnel, yeah, great, and make an all-Virginia kind of – so even though you had to change trains, at least you saved a lot of time. I think the traffic forecast indicate there's a lot of Virginia-Virginia traffic within Virginia's side of the river.

ZS: The clunkier system shows up in the report here.

JW: So that would have been hard to do.

ZS: From the '63 bobtail to the '65 bobtail, there's really very little difference.

JW: Yeah, that's the change, and we made this longer.

ZS: You extended the Columbia Heights spur. You made it longer.

JW: Yeah, put it back to where it was in the '62 report.

ZS: Then also on the Anacostia.

JW: And I haven't the vaguest idea where any of those stations would be. I know I used to go to the movies up in the Columbia. There used to be a great theater, had a lot of foreign movies, and that was a good place to go. That was my main connection with Columbia Heights.

ZS: It's just interesting, because it becomes – there's a lot of fairly sloppy scholarship about Metro.

JW: Oh, yeah.

ZS: I don't know if you ever saw William Mearns' book. In 1971, it was originally a dissertation at University of Maryland, and then he publishes a hardback. It attacks, attacks, attacks Metro for killing the Columbia Heights spur, and then mentions oh, by the way, then they put in a Mid-City line that serves the same neighborhood. I just want to clarify that point.

JW: Yeah, the third line didn't come in until at least quite a while later. Yeah, it was filling that gap; it was providing more capacity.

ZS: But you were talking about it as early as 1962?

JW: Yes, in the early sketches, and I guess we don't have any of those, it would have –

ZS: Unless these vague yellow lines – I just don't know. Were these pastels, crayons that you were working with?

JW: Yeah, colored pencils I guess, and such. This was going to cover this corridor. I think the third line really came around when they decided they would like to have a more direct route to the Pentagon and were going to need more capacity, particularly with the line developing out to the west. The line to the west, that was harder. There wasn't a good railroad right-of-way out there. There was no easy way to build it, so as you built that out, then you had to add some capacity down to the south. That all came after I left.

ZS: That was right at the tail end. I just wonder, did the 1962 report – it doesn't look like there was necessarily room for a third line.

JW: We just figured we'd stop while we were ahead.

ZS: Okay, it made sense to get them off (indiscernible 50:53)

JW: To get a two-line system, yeah. The Columbia Heights Line could later help relieve this line, though nobody ever put that on a map. I may have had it on a map sometime, but nobody else did. The '62 report showed – oh yeah, we had the definite branch out here. I have to make a quick stop.

ZS: Yeah. I wonder if we could take a break here because I have a lot more questions.

JW: Yeah, we could take a quick lunch someplace.

ZS: OK. Let's do lunch right now.

JW: Yeah. The ladies are busy here, but we can go. There's a pizza place down by the trolley stop.

(Begin ms2214_s01_c04_john_insco_williams_i003_of4_b)

ZS: Zachary Schrag is interviewing Mr. John Insko Williams. It is January 3, 2001. We are at his home in Brookline, Massachusetts. It's now around 2:10 in the afternoon. We are resuming our conversation after a lunch break.

I'd like to talk some about the agency culture, the people who were there, the mood. If I could run some names by you, and you could maybe tell me how closely you worked with them and any anecdotes, any impressions of them. You had basically been recruited by Fritz Gutheim, who was on the advisory board.

JW: Yes.

ZS: Did you continue to see him or work with him after you joined up?

JW: Not really. No, because once I was in the agency there, plenty of things to do. Then he was getting into other things at that time, too, because his organization was one of the ones that helped get the whole Metro idea started. I ran into him now and then, but that was about it.

ZS: What about Stolzenbach? Do you remember first meeting him or your relationship with him?

JW: Yeah, I probably met him very shortly after coming on board. I always communicated well with him because of my position of being almost a free agent there with working

with Bob Keith and Bill Herman. A lot of times I dealt directly with Darwin. He usually came to me. He'd say hey, what about this, or how could we do this? And I think he sort of liked the approach that I took on dealing with some of the problems, design issues, certain planning issues, to try to take advantage of the European experience that I could offer.

ZS: Now, he didn't really know anything particularly about transit, is my impression.

JW: No. He, of course, had been very active in the anti-highway movement in the D.C. area. I think his background before that was probably operations research, that kind of activity. I think he could easily deal with the planning process and all that, but politically, he always had the problem of – had support of the public and the people who were just didn't want to see the highways take over the entire world. But the enemies were the Highway Lobby and so forth, were well-financed and they managed to finance their friends in Congress to get their way. It didn't stop Metro, but it certainly slowed it down. It made everything take longer time and cost more money.

ZS: Did you feel that he actually was using the sort of traditional methods of operations research, or imposing those at all?

JW: I'm not really that much into that whole operations research deal. I know some people that were involved in that, so I really couldn't say that. I do know that they did get into a lot of studies, which to me were pretty marginal. I think it was because they felt that they

had to be sure to be able to answer any question that anybody in Congress or the public would ask about technology. Are you doing the latest thing? Are you sure that you haven't forgotten or ignored some other technology? So they had to have lots and lots of these studies. I know they put out a series, like twenty-some contracts, and that's what a lot of these appendices are here, these small booklets.

Of course at that period of time, rail transit technology hadn't gone as far as it has now, because they wanted to be sure that people didn't have the image of the New York noisy, boxy, old-fashioned subway. They wanted a whole different appearance in the vehicles and in the stations and all that, so that they had a lot of these technical studies done to deal with. They probably did one on noise and vibration and different propulsion systems. It was looking at what's the state of the art out there in many of these fields. And other kinds of studies that they had to do, like I mentioned, the parking thing, and the whole traffic forecasting thing. That, of course, as we said, grew out of the big studies that were done in Pittsburgh and elsewhere, using computers to do all the stuff.

Though at that stage, I remember we used to get volunteers from the staff to go out to Bureau of Standards to get these printouts that came from this monster computer. It filled rooms and rooms, and we had to draw trees. So they used to draw an origin point, and then trace the roots from that origin to other traffic zones and maybe have a hundred-some zones. You'd draw these. You'd need to be sure that there weren't any real anomalies or black holes where things would disappear. This was to help in their forecasting, another technique for the traffic that would flow generally from the origin

destination and then by mode. Then you had to do this, the whole modal split thing, based on travel time, transfer time, waiting time, access time, and all that to split them in men from the boys, the transit people from the others. There was a lot of that sort of high-tech stuff that was going on.

ZS: And you said this has not been done in Helsinki?

JW: No, because we were ahead of that and were just taking advantage of the known information.

ZS: So you had more computers in the U.S. and also more cars, so modal split was probably more of an issue?

JW: Oh, definitely in Washington, because there would be all of the naysayers that would say oh, nobody's going to ride it. Automobile is the only way.

ZS: Now, you had said off the tape that some of these studies were really just sort of foreclosing options, that you didn't necessarily think –

JW: Right, and that's all it was to me, real nitpicky. It just got into a lot of stuff that probably wasn't really relevant, would have no effect on the economy or the system, the cost of it or any of that. Then there were the other efforts. Of course, they did use engineering consultants to study the B&O Line, the interface with the railroad and how you would

deal with all those issues, and the tunnel routes. But then it was interesting; the station planning was very minimal, minimal kind of effort at that stage.

I remember doing studies. I would do a station at Dupont Circle. I could say that anyplace they put a station was a scheme that I had, because I looked at schemes south of the Circle, in the Circle, north of the Circle, that kind of exercise to see more or less how you would lay out a station with the entrances, and then working out walking distances and going back to my DOT maps.

ZS: You did the locations, and then DeLeuw Cather came along and did the plan and profile?

JW: Yeah.

ZS: Because I've seen that appendix that has not super detailed, but fairly detailed plan and profile for a lot of routes.

JW: Yeah. They did a lot of that stuff.

ZS: But you were actually picking –

JW: Picking the basic locations, at least in the central area. Out in the suburban areas, a lot of were sort of obvious locations, like Silver Spring is where the railroad station was, and places like that where there are obvious major arterial streets crossing. Well, someplace

there, you could fit a station in. And we knew that there would be parking, but we didn't, at that time, do much in the way of detailed layouts of any of those things.

ZS: When did those layouts appear? If we could talk about the architecture some, do you remember meeting John Rannells or how you came to start working with him?

JW: Yeah. He came in after I was there for a while. He was into some basic planning stuff and was starting to get a little bit into the architectural area, thinking about sort of how they would go about getting architects and doing all that. He was sort of a coach. I'd try out ideas and go in, and we'd sit and talk. He was another person to talk to about these things that sort of understood what we were trying to do.

ZS: So there was no one really specifically hired to do that then, right?

JW: Any station planning?

ZS: Yeah.

JW: Not really. No, except as was done by the other consultants, just incidental to well, here's the station. Here's where the platform's going to be, that long, and some entrance someplace, and that was really it. I circulated some of the stuff that I did on the Stockholm system. I took a lot of stuff. I didn't have my own photographs, but I had reports and things, and I translated some things into English and did a little map. Some

of that stuff had appeared earlier in that Congressional record, to show people that this is a way you can do stations, with entrance lobbies at the ends and reach out, make that one station serve a much bigger neighborhood.

All the stations that were being designed for BART at that time, DeLeuw Cather and others were doing the big mezzanine that you built the platforms and you covered a lot of that with mezzanine space, and maybe there were some concessions, but a lot of it was just wasted circulation space, and then, you'd sort of come out of the center of the station. I was pushing the Stockholm approach, which was the multi-ended station, at least in urban stations. A lot of them got built that way, with double-ended stations.

ZS: I have a February 1962 memo where you write, "Objections to transferring between crossing routes are often due to poorly designed stairways, narrow platforms, and circuitous passageways typical of the low architectural standards used by older subways in the U.S.A. and some newer ones," which is one of the very earliest documents I have saying that maybe the architecture could get some attention. The comparison, when you say, "low architectural standards," there's an (indiscernible 00:12:20) Paris and Stockholm for European standards. Is that correct?

JW: Yes. Like transfer stations, or crossing stations, too, is a problem, where two lines cross, to get the geometry right. If you have an island platform, center platform station, you have such a tiny little space to get all the circulation. Then there were those kind of

issues; there were other parallel stations and how you can do all that kind of stuff. But I never did much in the way of detailed station planning that I can recall.

ZS: But you certainly did a design for National Airport.

JW: Yeah, sketches of that one. That was a special issue.

ZS: You said off the tape that that was planned as a spur?

JW: Yes. That was going to be a branch line starting, that the line was going down the west side of Potomac Yard, along the passenger mainline of the RF&P, and where it branched off just below Crystal City, cut under the throat of the entrance end of the freight yard, going right over the airport, and jumped up on an overhead, and terminated on an aerial structure right in the middle of the terminal building, so you couldn't be any closer.

ZS: That design was cancelled because of the decision to reroute the line?

JW: I think it sort of depended a lot on National Airport plans, because there were interests that did not want to see National Airport expanded or improved. I think part of it was Dulles Airport. You know, the government's spending a bundle of money on Dulles, and that's where the international carriers all were going to go. So why spend another fortune on National Airport? I think Baltimore Washington was competing, too. It took a long while. It's only in recent years that they finished that rebuild with the terminal at the

National Airport. But at least that showed that you could get rail service to the airport, and then I think it sort of was kept in mind as they developed various schemes after I left, until they came up with the present scheme, just bit the bullet and went there. They didn't want to (indiscernible 00:14:51). It was a much better way to do it.

ZS: Then another station that you seem to been involved with was Pentagon City, where there was going to be bus transfers. And what happens, apparently, is that DeLeuw Cather did a design for this, and Stolzenbach has a memo saying, "The DeLeuw Cather design is awful."

JW: Was that for Pentagon?

ZS: The Pentagon City. "Williams has done a much better design," so that suggests that sometimes –

JW: Yeah, it may have had to do with the location and the arrangement with things there. I vaguely remember doing something there.

ZS: This was the same kind of thing you had done your college thesis on, is that correct, kind of transfer stations?

JW: Yeah, massive transfer stations, but I can't remember any specifics of that.

ZS: I'm just interested in how you got hired as a planner and ended up doing some architecture, and what that says about the agency.

JW: Yeah, it was sort of by default, because there wasn't anybody else there. They had to depend on their consultants, some of the consultants that were engineer-dominated.

ZS: But the agency was loose enough that if you came up with a sketch, you could show it to Stolzenbach and he could say this is a good idea?

JW: Oh, yeah, I had complete access there.

ZS: I think not long afterwards, perhaps as a result of the sketch you did, Stolzenbach sets up something called a consulting architect selection board, with the idea that the NCTA is going to hire consulting architects, as well as consulting engineers. You'd gone to that committee with Rannells, Howard Lyon, **Odin Malone** who's a lawyer. I don't know what he was doing.

JW: Probably contracts.

ZS: Okay. Then someone named **Scherburg**, whose first name I don't know.

JW: Yeah, I remember that name, but what year was that, do you know?

ZS: January '63, apparently, that board was set up. This was after the November report came out.

JW: Did they list me as being on there?

ZS: Yeah.

JW: Because I don't really remember. I don't think that we ever functioned that I knew of. This was a long time before they start dealing with architects. That was a consultant.

ZS: Yeah, this looks like maybe a DeLeuw Cather sketch.

JW: It's a little generic.

ZS: This is page 38 of the November report.

JW: Yeah, with the big mezzanine.

ZS: This looks like it came from the policy plan for the year 2000 for the NCPC.

JW: Could have been.

ZS: I think some of these were reproduced. This was a bus transfer station on page 38.

JW: I don't know who did that. We had some commercial artists or something helping do some.

ZS: Okay, so it sounds like there wasn't that much thought into the station architecture.

JW: No. I think there was an understanding that whatever was done was going to be good. It's going to be outstanding, but the priorities weren't dealing with that issue at that time. It was more worrying about finding respectable locations for stations, both in the center and out, and in some cases, trying to find where the routes should go, because some of these routes, these tails like to the southeast were wagging in all directions. There was a study going on, I think around the time NCTA started, that was probably sponsored by regional planning bodies. It was an attempt to get the counties to do some serious planning, land use planning, transportation planning-related. There was a report, something in corridors, I think.

ZS: Oh, Wedges and Corridors?

JW: Wedges and Corridors, that's it. They, I think, picked several locations where they thought these corridors could develop. One was coming down southeast, just on the east side of the river. You'd go cross the Anacostia, and then you'd head by various routes down in an area of Prince George's County, which was still relatively undeveloped. There was some development interested in the two airports over across the river from the National Airport, the Anacostia, and whatever the other one was of the two. Bolling Fields or something?

ZS: Oh, yeah.

JW: The two close together. I don't know what's happened in there, they function still, or turned into a park, or what's happening on that side of the river.

ZS: I just don't know.

JW: There was an attempt to – we showed one of our rapid transit corridors going – I don't know if that was the '62 full system. Well, this doesn't show it very far, but yeah, this thing wandered back and forth as to where it would be. The Wedges and Corridors had a certain thing there, and said well, ideally, that the transit would get into it. But there was a lot of dissension about where this should go. Should it go out that way? Should it go down this way? Should it go down here? I don't know where it's going right now. How far have they gone here?

ZS: Well, as built, this was very controversial, but they ended up going sort of south and then up, and then it does a sort of zigzag.

JW: Comes out of this direction toward Suitland Parkway.

ZS: Yeah.

JW: But not very far, I guess.

ZS: Right, and that'll open in about two weeks.

JW: This corridor just sort of disappeared, then. Wedges and Corridors sort of (indiscernible 00:21:12) report said that.

ZS: Well, it was very influential in Montgomery County, and to some extent, in Arlington and then got ignored by the others.

JW: Yeah.

ZS: Did you have direct contact with any of the county planning agencies?

JW: I remember going to some meetings in Fairfax County, because I had a friend that was working for them for a while (indiscernible 21:40) guys, but his wife was Swedish, and our wives were friends. He was working out there in a very junior position, and I remember we were looking at this line out to Fairfax and possible terminals. I remember I did do some little sketch planning of some of these. How do you get a station in the middle of an interchange, or don't you? Or do you get between interchanges? We had several meetings with those people. But generally, other people dealt with meetings. I was a backroom guy.

ZS: Got it.

JW: Just happy doing that. People like Warren (inaudible 22:22), he was good at going out, shaking hands, being the southern gentlemen and promising everything to everybody.

ZS: So obviously, this Fairfax Line was going to follow the I-66 median.

JW: Yeah, it was just getting there was tough, because – I don't know if that was showing it on the highway corridor the whole way or not.

ZS: I don't think so. I think it was talking about going underground.

JW: Highway wanted to come in and take over the Old Dominion branch line to Rosslyn branch, so that would have been gone.

ZS: And it wouldn't have been wide enough.

JW: No, there was no space there.

ZS: The interesting thing that that Arlington Wilson Boulevard Corridor is that it was pretty much built as shown on the '62 plan, but they put in two more stations.

JW: Because they got their density and development.

ZS: Yeah.

JW: Yeah. Arlington really came through. We'd sometimes talked about something coming down –

ZS: Columbia Pike.

JW: Yeah, but that would have had to been tunnel all the way. Then Shirley Highway was in there.

ZS: And you said there was not much thought of Tysons Corner at that point?

JW: Yeah, I'm not sure exactly where Tysons Corner is.

ZS: This, I assume, is the Dulles Access Road. Tysons Corner is sort of halfway between the Dulles Road and I-66, so there wasn't an obvious right-of-way. On the other hand, it's not very far, so in a sort of ideal world, maybe they would have put in a mile or two of tunnel under Route 7 and then picked up the Dulles.

JW: Yeah, and maybe that would be in the works now. I don't know what they're studying.

ZS: They're talking about this loop where it would go and loop around in very kind of odd planning. You said before that Tysons was just not a destination.

JW: No. If you go drive out to the mountains here into West Virginia or something, you'd go through Tysons Corner, and all those gas stations, hot dog stands, pretty seedy area.

ZS: And Dulles itself, was that considered as a potential destination?

JW: It was always sort of a long-range thought that we'd get out there, and when some of this highway design was being done here, they made allowances for that to happen. A lot of the highway planning was well advanced when I came down. I remember having to look at some drawings from the Highway Department to figure out how we could get a track under a ramp, what they had to do to the ramp so we could fit through there.

ZS: Ed Tennyson shows up in a lot of your memos. It seems like he was giving reports to NCTA that you would summarize.

JW: Yeah, I think a lot of operating issues is what he was good at. He had been a transportation commissioner for Philadelphia a long time. I had met him years before that, so yeah, we were friends, but he was not in Washington all the time. He would come and go. We talked about the frequency of service and how you could operate things with these interconnections and all that stuff, car storage requirements, and all that stuff.

ZS: Did you ever work with Kent Cooper, the architect?

JW: No.

ZS: He might have been hired after you left. Then the other name is **Gunter Gotfeld**. He was an engineer. He seems to be the other person on the NCTA staff with European knowledge.

JW: Yes, because he had been probably a rail fan since birth or something, so he'd been around a lot and seen a lot of things. He got a job in Stockholm, doing some work for the Stockholm transit system. I don't know if he really had an engineering background, not a civil or structural kind of thing. I always thought he was more of an economist type, and that kind of thing. He was involved with some of the planning work, but we didn't work together there. He would have come up and worked here in Boston. I think he did, unless I'm confusing him with somebody else. It's been so long.

ZS: I'm not sure. Let's see, we talked off the tape a bit about the bus rapid transit study that, if I understand it, was done to meet potential objections more than to examine it as a live alternative. Could you just go over for the record some of the main problems with these bus proposals?

JW: Yeah. This was July in '63.

ZS: Study of bus rapid transit operation. Again, the chronology, maybe I'm asking these questions in the wrong order.

JW: And Kaiser Engineers, they did some stuff on the ventilation, and Wilbur Smith, he was traffic. We always studied this business with how to do platform buses and try to run very, very frequent service. There was a problem with 12th and G.

ZS: Yikes.

JW: Yeah. How do you make that work?

ZS: You know, I've seen this before. I'm not sure I saw that figure in there. You were talking about this enormous excavation.

JW: This was only part of it, because you'd have all the passenger circulation space. You'd have to have a mezzanine level between the two, probably another mezzanine under the street, and it got pretty outrageous. I'm thinking that this was probably so you could get a platoon of two buses together at a platform. Well, you know Seattle built a bus tunnel system. I did some work on that.

ZS: How does that work?

JW: Well, it's going to be converted to rail. Hasn't worked all that well.

ZS: How is that ventilated?

JW: Well, the trolley bus is electric. It's a dual-mode electro-diesel, so they run underground and electric, so they just have a normal ventilation for climate and that kind of thing. Oh, yeah, here are some other bus platform, bus station configurations.

ZS: When you were doing this report, it seems a very odd job to be asked to make the best case for something that you didn't believe to begin with was going to be practical.

JW: Yeah, that's always a problem, but you sort of have to just take it and say well, this is what they want to look at, and how we can make it work? That was the downtown tunnel stuff, a couple of these tunnel routes. That was partly our transit configuration, but you'd feed in from the expressway system. There's this exercise that I went through. This was just a little more detailed drawing of a bus station, several configurations for these two bus platforms. Then we got into the concept of how do you serve a corridor, say starting at Rosslyn? Here was your first station, say at Rosslyn, where you'd connect to the rapid transit and then you see a dotted line to Dulles. You had these different loop arrangements. This turnback loop concept is something (indiscernible 32:08) made a big thing. "Oh, we'll save all kinds of money doing that," because you don't have to run everything to the end of the line.

They had their own right-of-way, and here's where they would get on the expressway and run with the other traffic (indiscernible 32:28). Then here was what we called equivalent service concept, where we ran buses through to certain points, and then we had bypass lanes and then stopping lanes, so at least you could get from point E to point D, if you got

the right bus. This was like B buses make all stops; A and C buses, no stops, that kind of thing. Then that just compared with rapid transit and with the line.

ZS: Create on southside, and other various schemes for right-of-ways.

JW: This would be the Rosslyn station. That would be the rapid transit station, and then you had the bus platforms here, so you can easily go up and make the transfer to the bus. Now, this is one of these typical turnback stations that came up, looped around, and went back again.

ZS: The other technology that always shows up in the sixties is monorail, and Roy Chalk. Do you have any psychological explanations, or any other ideas about why monorail has been so persistent?

JW: Well, it's different. That's part of the thing, and you see the artist rendering of a spindly little beam or pole with a big train sort of hanging on it, from below it, or crouched on top of it. Yeah, it's modern. It's different. (Indiscernible 00:34:18) times, maybe quieter and all that, but you never see a picture of a monorail with a station or a monorail with the track as it really ends up being built. (Inaudible 34:32) switches and unusually long spans and other stations. I've seen some of the monorails around Japan, around Tokyo and I've taken pictures of some of those from below, and it's – wow, there's just a lot of stuff under there. If you saw all that stuff, in reality, it's not what the artists show. Also, the idea like some of the people movers that they may not be monorail, but run on a paved roadway, guided, when they really get built, the structure ends up being a lot

heavier, a lot more massive than you would show on the sketches. Well, it still hangs on. There have been some successful very sort of low-speed, lightweight monorails used for airport access. I think in Newark Airport, that that's a monorail system they (inaudible 35:38).

ZS: Yeah, that one went over I don't remember how many times its budget.

JW: Oh, yeah, that happens.

ZS: That was a bit of a mess.

JW: There was a program to build a big monorail in Las Vegas, and they actually started putting some structure on, and then that whole thing died. Now they're back. They're going to do something else. I don't know if it's a people mover or what it is. Yeah, there's sort of a romance to the monorail. It can be built on the surface or built on an elevated structure where you could not build a structure for a conventional train. The thing is, when they're all said and done, they aren't that different in terms of the amount of shadow and stuff they create. The station is just as big a shadow-caster for monorail or for conventional rail. Conventional rail, too, they have rubber tire trains. Paris does that. They put that on there.

ZS: Now again, if I understand it, the Paris Metro has a somewhat different function in that it is a very urban system with closely-spaced stops. Would it be wrong for me to say that your job in planning this downtown distributor in 1962 and '63 was to find a way to use

suburban rail cars for an urban function? That is, metro cars have the steel wheels, they're seventy-five feet long, they're high speed. They're not the nimble, short, rapid acceleration, rapid deceleration system of Paris that can turn corners and all the rest. It's the difference between a little Renault and a big old Buick. You started with the Buick, and then the question is, how do you navigate the Buick through an eighteenth-century city?

JW: I think that as far as acceleration and braking, it probably is not that much difference between the Paris metro car and a Washington car. It's mainly that Paris started out with small cars. They started with two-axle cars actually. They had a lot of sharp curves, and that gets tough with long trains to have such sharp curves. The constraints that we had in Washington for curvature didn't hurt us that much. We were helped by the presence of little triangles of open space and wide boulevards, or going into deep tunnel, where you could pretty much ignore what's happening above. The compromise in the number of doors; I think that the Washington Metro car has three pair.

ZS: Three pair, yeah.

JW: Another system, a forty-five-foot-long Paris car might have three doors on the side.

ZS: Yeah. I guess BART has two, and I think Weese wanted four, and three is kind of a compromise.

JW: Yeah. That impact stopped time. Of course, they went through the door, the seating arrangement of the car, because Washington has a wide car. Paris cars are very, very skinny. Some of these new things, like the valve system, that automated train system developed in France, is tiny cars. They're about seven feet wide and short, about thirty-five, forty feet long, but they were running in Miele and Toulouse, I think (indiscernible 00:39:27) is getting that. O'Hare Airport has the same system (indiscernible 00:39:32) France, their aerospace outfit, who's now merged that division with somebody, I think a German company. So yeah, it's sort of a compromise.

It's very much like the S-Bahn trains in Hamburg and Stuttgart and Berlin and Frankfurt, München, that have more doors than an inner-city train would have but are higher speed and run around longer-radius curves. As far as when the people get on them, it's all the same. They don't care what you call it, as long as it gets them there in reasonable time and they don't get trapped in a car, get out at their station. And they handle very, very high volumes and run very frequent service. I think in Frankfurt now, they're running about twenty-four trains an hour. Munich is close to the same amount.

ZS: It's just interesting that you use those European terms, because some of your 1960s memos have the same kind of approach, where one of the ideas with Forsythe's loop was you're going to have a single-ended vehicle that was going to then turn around.

JW: Yeah, that was part of that.

ZS: And I guess the doors would only be on one side. It'd basically be like a bus.

JW: Yeah, they're building on that bus thing, but it wasn't truly a bus because they always had to run on a segregated right-of-way.

ZS: Yeah, and you came back and said well in Sweden, they do it this way, and you can just turn around. A double-ended rail car you can go back and forth. Also, there's somewhere in the files some paper about rail lubrication from Stockholm that you translated, and it just seemed that you were a conduit for all sorts of European knowledge. You were hired for planning, ended up doing architecture and then just little bits of mechanical engineering.

JW: Yeah, I've done all that.

ZS: Now, the big milestones in terms of chronologies: You get hired to prepare the November report.

JW: Yeah. I worked on that.

ZS: How did that work leading up to the report, leading up to the deadline, and then how did the publication of that report change your job?

JW: Oh, let's see, I'd done pretty much the downtown system routings, going through that whole phase of DOT maps and drawings, lines and trying to get the optimal connections.

Then I think I probably wrote some text that was used on that, or was a source. I did write a lot, and then they could pick from that what they wanted to use.

ZS: Who exactly?

JW: John Rannells was involved, too, in the production, and I'd check the maps, because they had draftsman or commercial artists do some of the maps. I would give them the rough stuff, and then they would draw it up, and I'd have to check on that. I took part in that and probably filled in on some other activities at the time.

ZS: Were you very rushed? Because I know that they had a lot of work to do in the year and a half.

JW: Yeah, it was a pretty intense, intense operation, because they were trying to get this traffic stuff and they had an awful problem getting these models and things, getting these things to run. I know in Boston, they got into the same bind with this Boston regional planning project that was a follow up to those kind of big studies.

It came down to the deadline before you got the model to run, and then you weren't even sure it was all that good. They had this whole method of doing modal split, which is a lot of complicated math, and the computers weren't as they are today, and so those people were in a panic. That's why sometimes I had to fill in, going out at night and sketching up some of the stuff to check on how the program was working. Still, we had a small staff. At the most, it was like seventy-five people.

ZS: Then the report comes out at the beginning of November, and in January '63, you write a memo called, "Possible Criteria and Assumptions for a Limited Rapid Transit System," which makes it seem that not long after the report comes out, someone's talking about bobtailing it.

JW: Yes.

ZS: What happened? You picked up the paper and saw that the report was being attacked?

JW: No, I think the word came from Darwin and said hey, we got to look at a shortened system. What could we do? Is there any way to do this? Would it make any sense at all?

ZS: So probably a conversation between Stolzenbach and Whitener or something?

JW: Yes.

ZS: You don't know where the word bobtail came from, did you?

JW: No. You know, it's the old bobtailed cat or something?

ZS: Yes. I wonder if Whitener coined the term, because in North Carolina, it sounds like kind of a vaguely Southern term.

JW: Yeah. Some of this, looking at these pages here where we got into our type of urban rapid transit systems. This was the deal with the (inaudible 45:56) thing.

ZS: What does this mean? "Those who propose using buses for the principle downtown distribution of commuter traffic clearly are not arguing the same case as those who favor buses for trunk line operations on principle routes."

JW: I didn't write that part.

ZS: I guess the idea was that certainly, on a one trunk-line system, like the bobtail system, you might well have to have buses at both ends. You'd have feeder buses –

JW: Yes, right.

ZS: – then a trunk route, and then to get from G Street to your office on Independence Avenue, you might have to take another bus.

JW: Yeah. Here are some tables, and I made up with those sketches and just sticky taped onto there.

ZS: Those were pages eight and following.

JW: And I got somebody to type it up. Because I don't know anything about typing. I have to write all my memos, print freehand. Here was what we called modern concept high-

speed rail as the NCTA system, and BART and Lindenwold, that kind of thing where you go out some distance. You might have a branch, you'd have surface collector routes. It's talking about collection line, all downtown distribution.

ZS: I see.

JW: And talked about the physical roadway, what it was, not necessarily what the vehicle is, but what the right-of-way is, and then vehicle type. Here's what you got. You have automobiles, the collection mode, feeder buses, and a trunk line vehicle, fixed track vehicles and trains on rail or rubber. Could be rubber tire transit (indiscernible 47:44). Now it seems like why don't you do it like Paris and Montreal, rubber tire trains. Montreal doesn't run their trains outdoors in the snow. They might have had a test track outside and they can use it.

ZS: Oh, really?

JW: Yeah. Well, you use it in the summer. They can use it. You couldn't use it when it rained. Just duplicate the (inaudible 48:05) track down in the tunnels.

ZS: That's interesting.

JW: So all the Montreal lines run these strictly underground.

ZS: Is that true of Paris, as well?

JW: Paris does run outside, but it never or rarely snows in Paris, and it does rain, but they also have some extra length of platform if they slide at a stop.

ZS: Steel wheels for snow?

JW: Yeah, snow and ice.

ZS: That's good to know.

JW: You can carry a heavier load.

ZS: Well, you see because I had always thought of it in terms of deceleration for some reason. It's shows when a historian reads one thing, that generalizes too much.

JW: Yeah, well, they they try to give the impression, but it isn't that much different, and even noise level, too, well-designed steel wheel train and good, well-maintained track.

ZS: Oh, yeah, well, that had come up. But again, my impression was in the outer sections of Metro, where you've got two miles between a station, there you really want the steel. You want to go – the speed, and that's where the steel wheel really comes into its own.

JW: But here was that conventional short-term rapid transit. This would be where the line doesn't go out very far and where you'd need, again, line haul and right-of-way, and all

that stuff. Then I'm saying here, fixed track vehicles. It's just that these lines get longer, which means you're not going to be –

ZS: This is sort of the bobtail plan, or a glimmering?

JW: This was part of this (inaudible 49:31) document.

ZS: Yeah, but there are hints of the bobtail.

JW: They're in different modes, and it was probably at the time we were starting to have to think about that.

ZS: What happens is, as far as I can reconstruct it, the bobtail plan doesn't really enter the official record until November '63, when Whitener introduces his bill. But it seems like you would spend most of 1963 sort of with that in mind, that it was very clear, by really January '63, that you might very well end up having to propose a strictly urban system. So someone had his ear to the ground.

JW: See, here was the concept of a surface collector and trunk line continuous, that you'd have some feeder lines, but you'd also have lines go through. Here's what I said about the vehicle type. Individual controlled buses or fixed-track vehicles with short trains. That's a streetcar someplace. This was really to get back at (Inaudible 50:39) and all this. I'll do that in terms of their transit technology.

ZS: I see.

JW: Lots of things, but they aren't all that different. The more you want to do, the faster you want to run, the higher the capacity, you've got to provide infrastructure. It almost doesn't matter what vehicle runs on it; you've got to have infrastructure. See, this is out front in this document and sort of set the stage for the rest of the stuff. Oh, that was like going through downtown on its own right-of-way. This is where you'd use the trunk line, then you get off and run down the streets downtown. These were basically buses or could be light rail with some minor (indiscernible 51:24).

ZS: And with that kind of system, you have 256 different routes, and each one runs twice a day or something?

JW: Yeah. Then this was a trunk line with buses, or it could be trains. It could be railroad trains, but then you have, in the downtown area – what did I have? Line haul. It could be buses, streetcars, commuter rail trains. They'd come to a terminal; then you'd get onto some sort of downtown distributor, which could be buses, could be trains, could be conveyor belts. Who knows what it is?

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JW: This was the (indiscernible 00:00:01) concept of nonstop in all stations downtown. We tried to take what they were talking about and put it in a bigger context of here are all these different combinations, but mainly dealing with corridors. It was connecting outer

areas with the downtown area, not so much dealing with circulation within downtown, which turned out to be one of Metro's big things is that you give people working in Washington a chance to move around downtown for their lunch hour a little bit easier. They get to go from Capitol Hill to Connecticut Avenue to the boutiques and spend all their money on perfume and underwear, and then go back to work. We yeah, we did have to spend a lot of time on this effort, but it sort of did dovetail very nicely with the – having to think about our short haul system.

ZS: Then at the same time in '63, you've got a memo saying maybe we should build the suburban branches before the downtown because we can do what Helsinki and Stockholm did, which is shape suburban development by getting there early. It's not clear that anyone paid a lot of attention to that proposal.

JW: No, because the problem will be, if you don't get some downtown distribution, that you're in trouble. It was (inaudible 01:44) I guess he was trying to plan at least the suburban extensions. I may have mentioned that because that the way Stockholm's system started to develop was suburban lines built to a high standard, and then coming down the streets downtown in the center of Washington, the streetcars would have been all gone by the time we got there.

ZS: Interesting. Okay, so the Stockholm system was a streetcar line.

JW: Yeah, some of the first rapid transit lines, they were built to create separated right-of-way.

ZS: It's interesting, because right as this is going on, I guess it's '62 that the last streetcar runs in Washington.

JW: Yes. It went down to four lines. When I came back in '61, they had four lines left, and then they got rid of those very shortly.

ZS: Okay, so had Congress not killed the streetcar, you might have had even more options to deal with in terms of streetcar subways and all the rest.

JW: Again, that was the image problem, and there's old Roy Chalk, (indiscernible 00:02:48) to deal with, and he was very much against the project. Because he wanted to pump up his system, try to get a good price, because he saw the handwriting on the wall. Of course, he sold the real estate separately. The Car Barns were Chalk House down in the southeast.

ZS: What's that?

JW: That's one of those developments down in southeast, the (inaudible 03:15) complex down there.

ZS: I know there's the one Car Barn on Castle Hill.

JW: They're at southwest, pardon me. Southwest, down there.

ZS: There was a Car Barn there, too?

JW: Yeah, there used to be, and that's where they built a big high-rise apartment there, Chalk House. Roy Chalk interests built that. I went down there for a while, not even a full year.

ZS: What was your experience of the debates in '63? There are hearings in July and that's when the Highway Lobby really shows up in force to denounce the November report.

JW: That's when we sort of had to eat crow and become highway planners. We had to show that, well, people insist on highways. There are some ways to do the highways that may be less intrusive.

ZS: Well, who had done the highway routing in this report? That is, at some point, NCTA has to come up and say –

JW: I think we probably used Wilbur Smith, and we sort of stuck with – let's see, that was the recommended –

ZS: The NCTA invents this Y system for 70 south and 95 that then stays around for many years until they're both canceled. The 1959 report had the Northwest Freeway, 70 south,

going through Cleveland Park, and that's where all those people got riled up, and then the North Central going, I guess this is around North Capitol Street. I'm not entirely sure what the alignment would have been.

JW: Third Street down to 7th Street.

ZS: Then in large part, to get the freeways out of Cleveland Park, Stolzenbach says let's do a Y with 70 coming down the B&O right-of-way.

JW: Yeah, I wasn't much involved in that part.

ZS: Okay, so you got more involved after –

JW: Afterwards, when we got in trouble, yeah. I remember that was a big highway. What highway is this?

ZS: 95, the northeast, or North Central.

JW: I had worked I-95 at the Boston end, which never got built, fortunately. So basically, they deleted – Three Sisters Bridge was knocked out. The Center leg of the – well, they still showed that.

ZS: They cut the north leg and one interchange. I'm not sure which one.

JW: There's probably all kinds of other things that disappeared, too, on some of these. This was a bigger plan than what – I think later, Highway Department wasn't going to go quite that far. They had immense number of plans. Look at the highway system here compared to that. That was a big comedown. That's how – like, truckers in Nevada and California were writing their congressmen and saying that Metro's no good. We need to spend the money on highways, and all that.

ZS: Your personal experience of this was being drafted to suddenly look at highways.

JW: Mainly the Three Sisters Bridge, the north leg and that center leg, some changes to that to try to scale it down.

ZS: Okay, and we had talked about that before. So you proposed the north leg tunnel.

JW: I worked on it. Somebody else came up with that. I think I did some of the drawings to try to figure out how to do some ramps and things. We didn't have any ramps. Maybe that's how it worked. It's just not happening. It just had a beginning and an end, and that was it, which I've seen it done in Germany in places.

ZS: So it would just turn into a regular arterial?

JW: Yeah, but underground, and that would just come up onto a (indiscernible 00:07:41) street, just wider, just to try to provide some crosstown movement, but not at a freeway standard.

ZS: And then, the bill dies in November '63. Kennedy is assassinated, and then a few days later, I guess it's December '63, the bill was defeated in the House. Do you remember watching your agency's plan get recommended?

JW: No, I really don't remember (indiscernible 00:08:25). And I think we already had the mindset that we have to keep planning, keep the faith. They had that reduction in force.

ZS: Yeah, that's what my next question is. Right after that, Stolzenbach has to submit his next fiscal year budget, and it's got half the people. At that point, Keith and Deen both leave around that point?

JW: Yeah, I think Keith left first, because he got this job in Boston, and then Tom Deen left. I could have stayed. I wasn't on that reduction in force list, but they were happy to see me go. At the time, I left because Bob Keith invited me up to Boston. The Boston climate was nicer for my wife. The Washington climate was tough. I had a lot friends in Boston. It looked at that time it was going to be forever before anything happened. Figured it was going to happen someday, but life is short. Sit around and agonize and keep doing schemes and paper plans without any construction happening.

The offer in Boston was good because it was an operating agency that was reformulated, reorganized. It had a source of funding to build extensions and replace old elevateds, and eventually get into the commuter rail business in a big way. I felt that it was much more

interesting to spend the next years doing that than worrying in Washington. Because Washington, at some point, they could just kill the whole thing and we'd be out of work.

ZS: Well, that's the thing. I mean, it seems to me that '64 must have been an incredibly hard year for the NCTA. That is, they had their budget cut. They had been told by the White House that they couldn't bring up a bill again until the next Congress. You did put out this rail rapid transit report, which again, is very humble, barely mentions highways, really seems like sort of a plea for mercy, almost.

JW: Yes. The idea was, too, because of this question of getting the interstate compact and making all that stuff happen, so you wouldn't be so far off that the federal government could invest in a system within the District of Columbia, the federal city plus sneaking over the Pentagon, because it was all on federal land.

ZS: Right. There's not architectural planning. There's not really much route planning. I mean, Bill Herman, who's not a planner, gets put in as a placeholder in a way.

JW: And I don't know about the engineering studies. I guess they did go on with a lot more, based on this truncated system.

ZS: Somewhat, yeah, and those get used. I mean some of the lines didn't change. The Connecticut Avenue Line, I think they were able to build on those studies and get to work, and then there were other funding difficulties and all the rest. Basically, the chronology is that the new Congress comes in. You release this report to the new

Congress, essentially, in January '65, and Stolzenbach leaves. Did you leave or did he leave first? When did you leave?

JW: I left in December of '64.

ZS: Okay, so when this report was still in the draft phase?

JW: Yeah. I did all the stuff before I left. Wait, when was this draft? The date on this one, that's right. It was December '64. Yeah. This is what I was working on in '64.

ZS: Then I think it's released right after the new Congress comes in.

JW: Yes, right.

ZS: Did you say well, I'll finish this report and then go?

JW: What's that?

ZS: Were you planning to finish this report and then leave?

JW: I guess it just sort of worked out. The invitation came from Boston, and I sort of put it off for a while, and then it sounded like some really good opportunities up here. No, I don't regret the change. I'm not sure what I would've been doing down there, not having as much fun as we did up here.

ZS: It's just funny. Somewhere, I think it was in the Weese papers, I came across a letter from Rannells to you. It must have been later '65, after the bill was passed saying hey, we passed the bill. Please come help.

JW: Yeah. In fact, Fritz Gutheim was up here and was trying to talk me into it, but we had gotten well settled up here. I had a lot going on, (indiscernible 00:13:33), too much of a chore to move, and small kids and stuff.

ZS: And Boston was expanding at that time?

JW: Yes.

ZS: Which lines were those?

JW: First, we went through a major sort of master planning exercise. We're looking at trying to develop rapid transit, big rapid transit all over the place, and in fact, replacing the commuter rail system with rapid transit. But then, as we got into planning the first high priority line, which was on a long railroad which was partly abandoned and partly just freight-only service, and started to come into the real world of well, you can't go on the surface. You got to go underground here and here, this and that, and blah, blah, blah, build the bridge, that the taxi meter was running faster and faster. The reality came in of just it's going to cost a lot more money to do this stuff, and there's no way you're going to

get a rapid transit system that serves the territory, the region that's covered by commuter rail.

Bob Keith stayed here for a while. He left. He didn't seem to get along with the politicians, and he was too nice, I think, too good to deal with Boston politicians, and also got involved with some ideas that really turned people off. He also came in, and some of the other people were hired for the planning at MBTA were a little bit well, we know everything. The old farts there don't know anything. I tried to avoid that role, because I made friends with all the old farts. I'd to shovel snow and the winter and off the tracks, whatever.

ZS: Was that very different culturally? I mean, Boston has been in operation since the 1890s, versus Helsinki or Washington where it was primarily paper.

JW: Right, quite different because they were running. That's what I wanted to do. I wanted to get involved with something that was out there running, even if it was an old system but there was a potential for new stuff, which we extended down to the Quincy and Braintree, South Shore, and fortunately left room for a railroad track down there, which we've since reopened all the way in Boston as a commuter rail system. We replaced the old Orange Line Elevated north and south (indiscernible 00:15:59) North End, and did a lot of station modernization work, a lot of new maintenance facilities, did the Red Line extension from Harvard out to the Alewife. Southwest Corridor was just replacing the elevated, but that was a joint railroad, commuter rail, and rapid transit corridor.

We went through this master planning process again here for the commuter rail system. It was all owned by the individual railroads, B&M on the north side and New York Central, and then New Haven on the south. They were all bankrupt, but the very good modal split for trips to Boston that changed to the central area via commuter rail, even with old equipment and all those problems like the people who had to transfer. Some people could walk to work downtown, but others had to take the subway, street car, or something, bus, whatever. There was some suburban parking. It was gradually increasing. But there was a feeling something has to happen with the commuter rail system, so a big study was done.

One was developing a short system commuter rail with very intense service out to, say, Route 128 Highway, and then massive parking facilities, and then everything would be buses and driving from then on. But that seemed to be a system that didn't satisfy anybody, because you're still downtown, and you probably have to transfer again, and there still had to be a lot of investment in the railroad. So that idea fortunately died away, and some of our dreams of rapid transit going further out on some of these lines we cut back to something more realistic and started putting money into the commuter rail.

Mainly, we had an opportunity in the mid- to late sixties to buy all the railroad rights-of-way in the region. The railroads would have a permanent license to operate and dispatch the trains and so forth on these lines, at least where they wanted to. They would operate all the freight service and long-distance trains. That was before Amtrak.

What happened to our first line out to the north, we bought this one railroad branch and we spent a fortune. We appraised it at one value and the railroad said no, we want ten times that, and the arbitrator pretty much gave the railroad their price. But for what we paid for that one railroad, I think we paid for all the rest of the lines because the railroads were much more hard up. There was Conrail. Penn Central was going bankrupt and all that, so they were anxious to get any cash they could get their hands on so we bought all these rights-of-way. Some we haven't used yet. Some were abandoned, but we own them. Some of them may never see a rail, line so it could be used for park purposes and all that.

Then we started investing in parking, new stations, built the canopies and structures, and nothing fancy. A lot of locomotives, coaches, track improvements, signal improvements, all of that. Then in the more recent years, we extended lines beyond where the passenger services operated before. Several years ago, we opened the line up to Newburyport. I remember riding the last commuter trains on that line. It's like two trains a day each way, single car, Budd cars, diesel cars going up there. It laid abandoned, but we owned it, so we could control it.

Then we did this, what we called the old colony, which the old New Haven's network down toward the Cape, down to Plymouth and to Middleborough, through Brockton, Middleborough, down in that area. Those have been very successful. They built big parking lots, though some of the locals there, conservation committee or the mayor, oh, we don't want all that traffic. We don't want that big station. We don't need all that

parking. But we bought a right-of-way, bought a lot of land. Then, after we opened the service, they said oh, why didn't you build enough parking? People don't have a place to park.

Then we spent a lot of work upgrading parts of the Northeast Corridor jointly with Amtrak, in conjunction with the electrification, so I did a lot of work on that. We did studies largely in just the commuter rail department which is a very small group of people that monitor the operation of the service by contractor, which is Amtrak, been Amtrak for some time, the special division of Amtrak that does that here and in some other cities. We looked at what our future needs would be for track, for additional commuter trains, additional high-speed trains and all that. That was done jointly with the Amtrak people from Philadelphia, and they had their big computer simulation. They could run the railroad with different levels of service, different track arrangements.

Then we had to look – well, here's wetlands. You'll never get another track there without terrible difficulties and costs. Then other places where there had been additional tracks where we said well, let's put them back in. And so the electrification, as it's been done, has made provisions for some of these future track additions. We rebuilt a stone viaduct built in 1835.

ZS: Oh, yeah. I saw of that. Where is that?

JW: It's on the main line down to New York. It's the next station below Route 128 Station, A stone viaduct upgraded for 140-mile-an-hour speeds.

ZS: Yeah, I think I saw a presentation at last year's TRB on that. Appealed to me as a historian.

JW: The station above it just on this side of Canton Junction station, they have a short branch line which will be on the right-of-way, well beyond it, but (indiscernible 00:22:38), which we're working on plans now to extend more trains beyond the end of that branch, but we'd run a lot of short term trains. They'd just go down along that branch two or three more stations and come back. But that, we reconfigured the whole track layout. I picked up this stone station building and moved it. I've been following that project.

I did a lot of work on that, because we'd work on it, then get a scheme and then, oh, Amtrak didn't like it or somebody else didn't like it and all that and we'd put it aside. Then we'd come back to it, and it finally looked like their simulation showed that that was a crucial bottleneck on the corridor, so we had to do something. So we finally got a plan that we all agreed on, and after I retired, I did some work for Amtrak on that same thing. They had consultants working on it, so Amtrak hired me to help them out on that. I still go down there to check out the job and help out, even though I'm not under contract. I'm not getting paid for it, but that's fun, so that's finally happening. The commuter rail ended up taking a much bigger role here, as it's happening in Washington.

ZS: Yeah. I've got a friend who has spent summers at VRE. He's in business school and has done internships.

JW: Because we looked at commuter. That commuter rail study was done.

ZS: Sixty-two plan, for example, had the Bowie line.

JW: Yeah, but we looked at earlier, and it looked like – because there's not that much railroad down there that it – well, they were frightened by the railroad work rules. Like, to do something south, you'd have to pay the train crews to start work in Richmond to run a train that maybe started down in Triangle or Fort Belvoir, or someplace like that. Yeah, and all of that stuff that nobody was quite willing to deal with and just didn't seem to go enough of the right places, though we end up – it did get to the right places with proposed rapid transit. I think that Maryland on that MARC system, they're doing pretty well, because they can haul commuters in two directions, which is nice.

ZS: Yeah, and I think the **RE** is doing pretty well from what I hear.

JW: Because they go well beyond the limits of this line.

ZS: Oh, sure. They go down to Fredericksburg, and they've got intermediate stops. It's all part of a big system, the revitalization of Union Station has, I think, really helped attract people to those systems as well.

JW: Yeah. I remember there was that terrible visitors center concept. They started planning that while I was still working in Washington. There's a Cornell classmate, not my class,

but he was at Cornell at the same time I was, who was involved in that. He was always a klutzy designer. That project turned out to be a disaster.

ZS: And then they brought in Weese to clean it up.

JW: Yeah. That was amazing, amazing turnaround.

ZS: Well, I think that pretty much covers the questions I have. You didn't talk to Stolzenbach about his decision to leave, did you?

JW: No. He was really being forced out of there. He had been sacrificed.

ZS: By whom, though? Do you have any idea who was giving him that message?

JW: Probably could have been congressional people that he was dealing with. I don't know who else would be, but it was –

ZS: The White House, possibly.

JW: Yeah, probably the White House. I think they saw what the situation was, and in order to buy out the Highway Lobby, they had to shoot the messenger, I guess, shoot Stolzenbach. I've seen that happen in New York, out on the Long Island Rail Road. It was one these big political things and they had to sacrifice the president of the Long Island. One of the vice presidents, who was a friend of mine who worked here in Boston, they also

sacrificed to keep Amato or somebody happy. They were made the whipping boy for things that were not their fault, things that had happened before those guys came in there.

ZS: Right, which was not true of Stolzenbach. I mean, Stolzenbach was being let go for things that he had done that, in retrospect, may have been the right thing to do or may have been the wrong thing to do, but they were his.

JW: Because this was one of those highways he killed, that remained killed.

ZS: Oh, yeah. And there's no bridge at Three Sisters, and there would have been without him. You've kind of worked in several cities. Do you have any general comments on the significance of Metro to the American transit industry or the state of the art in transit planning?

JW: Well, I think one thing that Metro did when they finally did get their act together to move ahead, they really moved on a big system, though it's taken a lot of years to do it because there's just a lot there. They just grabbed the whole thing. It wasn't a start with one line and then we'll do some more things afterward. It was almost like an all-or-nothing approach. Once they went through that study scheme phase, then it was just go for it. I think in terms of station design and so forth, there's interesting history there.

You may not have heard all this, but I got it from John Rannells, because I'd talk to him every once in a while. That was when they got the approval to do the system and they set up this deal, they arrangements they would do to hire consultants when they'd gotten the

bid with DeLeuw Cather. It seemed to be an unholy matrimony there, which I think is bad. I think these systems that get married to big overall consultants have sold their soul to the devil. Anyway, that's what they did. But as far as the architecture part, Harry Weese was brought in, and I was probably in the correspondence with John Rannells at that time because I sort of knew what was happening. They were mainly concerned because they were dealing with the Fine Arts Commission of the district, which is the District of Columbia, and I don't know if (indiscernible 00:30:05) was still – he may have still been on the commission.

ZS: He's still there. It's actually all Kennedy appointees, still.

JW: Yeah, okay, so he was still on there. They wanted somebody to make a strong statement, design statement, because they didn't want the sewer pipe image of London or the steel column mazes of New York, and the noise, and the darkness, and all that stuff. (indiscernible 00:30:32) New York. They got Harry (indiscernible 00:30:43), and the selection process, I assume they must have gotten proposals from a number of major architectural firms, probably Skidmore and others. I don't remember the competitors on that. The idea was to have an architect set the basic theme for the stations, outdoor station, subway station, pretty much the two major types, dealing really with the platform canopy, that kind of thing. They knew there was going to be parking, maybe garages, things like that, but that was a separate issue. They wanted a bold, bold statement.

I think Harry came up with three concepts for a subway station. I think one was the arch thing, and that was intended for bored tunnel, mined tunnel arrangements. Then they had

a couple of other concepts for underground that were for other situations. The Fine Arts Commission treated them not as alternates that would be applied – you know, each type would be applied where suitable – but as alternates for all underground stations. You'd pick one of those three, and they picked one, the arch thing with the lousy lighting and the bad circulation and all that that entails. But I think functionally, those stations leave a lot to be desired.

ZS: Really?

JW: Because traffic builds up. Assuming they do more extensions and they can keep the ridership going, and when all the gasoline runs out, all that cheap gas. It's going to hurt, because they insisted on no stairs. Everything is escalators, but a lot of low-level, you know, risers should be done with some stairs probably is where they have like a lobby at one end of the station entrance and, say, side platforms, and you have two escalators to each platform. One escalator dies and has to be fixed, so you take it apart. That means for ages, for days, not just hours, people to that one platform are going up and down, walking on an escalator, which is inconvenient, which is hard for some people because there's no landings, and it's narrow, so you get two-way traffic, and that's tough. I've been in some stations where I've seen that situation. Now, what they have done is they've added – I think 12th and G, I think they've added some stairs.

ZS: Capitol South, (indiscernible 00:33:42).

JW: If you got three escalators and one goes down, you still got two.

ZS: On the center platform.

JW: (indiscernible 00:33:46) a platform, a center platform station can be an advantage. In many of those cases, they could have put in additional escalators. But the idea is, well, you want to keep people away from the walls so they don't dirty up the wall. Well, they sacrificed a whole escalator, and that slot in the platform, the wall where they sacrificed space on the platform, some of those platforms in the rush hour are pretty skimpy.

ZS: What do you think is the best station, architecture and design, in any system?

JW: I guess I still, still have a fondness for Stockholm, though the newest stations that were in the tunnels, which were all art, I haven't seen those. I think they were probably nice when they were new. I'm not sure how nice they are now, because when the art gets dirty, can you clean it? A lot of the stations like the MBTA – we have some nice stations. They were nice when they were built, but the maintenance is so terrible.

ZS: Right.

JW: They aren't cleaned properly, and then things don't get fixed. Leaks don't get fixed. Other things don't get fixed. If it doesn't work, you burn it off type, kind of torch it and cut it off. Or things get added. Somebody decides to throw in some kiosk to sell something and doesn't ask anybody, and there's no leadership to the MBTA. There was when Bob Kiley was here, who later went to New York and was the head of the

Metropolitan Transportation Authority, the big holding company that the subway and Long Island Rail Road, Metro and all that belonged to, are a part of. When they lost him, that was a big loss, and nobody since then has had the guts to keep control over his subordinates. They just let everybody do their thing and nobody cares, which is too bad.

As far as good design, the Stockholm, and Helsinki has some nice stations. I think Berlin has done some nice things, the newer ones. I think some of the newer Metro stations, the outdoor stations are better than the early ones with that big gullwing concrete canopy that never looks quite right. It bulges and sags and things. I think that restraint in materials is admirable of Washington. It's not a what we used to call a sweets catalog, which is the huge catalog of building materials, though some of the BART stations are that way.

Paris has done some nice stations on the METEOR line, the new automated line. Its first phase went into operation a couple years ago. I think on their (indiscernible 00:36:50), which is the RER, the high-speed, the railroad rapid transit, their equivalent of the S-Bahn. I haven't been in those stations but I have some pictures of them I've seen and some of that stuff's pretty nice. I think some of our stuff came out well; some of it didn't come out so well. But if it was maintained, though, like Porter Square could be a nice station, but it has to be cleaned.

ZS: Yeah. Well, then same thing as Metro.

JW: And I also think it's a problem. That whole northwest tunnel extension, that's sort of a philosophical issue with the consultants, the design consultants, Bechtel, and it's dealing

with water. It's a rock tunnel under very wet rock, a lot of seams, a lot of water running through it. Then there's a concrete-sprayed, concrete lining, a lot of rock building, so it's strong and all that, but it leaks like a sieve, including the station at Porter Square.

ZS: When was that built?

JW: One of the problems is, in the United States, because everybody's ready to build things, and they build in a hurry, and they want the concrete to set very fast, they use cements in the concrete that tend to set fast, but they shrink. When they shrink, there are cracks, and it makes the concrete (indiscernible 00:38:20) the water. In Europe, they have watertight concrete. It's a different – I don't know if it's not so much the ingredients, the stone that they grind up to make the concrete, but it's in the process, and how it's cooked, and add mixtures and things like that before it goes in the bag of cement.

I talked to a guy from the Portland Cement Institute at some meeting on concrete someplace, and I told him about this, and why is our cement so – well, that's what the Americans want. The cement makers could make a good, watertight cement here, but there's not that much of a market for it, and it's a nuisance to have to mix things, do things a different way, and they're killed. They don't like to change from one formulation to another. So we have lots of leaks, and they didn't put a membrane in there. They figured, well, they just designed it so it could leak and the reinforcing's all galvanized or epoxy-coated or something like that, so it'll survive.

What we did in Porter Square, the big arch, is we have a waterproof ceiling up in there, asphalt-coated, galvanized metal frame. But there are some places where you go from the platform area to a crawlspace, and then up an escalator, the watertight wasn't watertight enough, and you get some leaks. Those are things that could have been fixed, but the construction department at MBTA walks away from a project once it's done, and the maintenance department isn't equipped to deal with it because they have the sixty-nine unions, or whatever it is. And you have this building trades, and nobody does any work and all the old winos and political hacks that get these jobs to do maintenance work and so forth, and can't do it. So, it's too bad. The MTA, they talk about privatization. They should privatize maintenance, track maintenance, all that stuff. (indiscernible 00:40:29). Paris Métro, they don't maintain their own track.

ZS: Really? That's funny.

JW: They're very socialized. There's big corporations that do that. They get long-term contracts so they can build big machines, special machines that fit in the Métro tunnel and go in and do this work, and it's really reduced their maintenance costs and improved good quality of work. French national railways, for new construction and also any major track renewal project, when they renew ties, ballast, rail, that's all companies that come in and do that. There's two or three big ones that bid on it; same with Germany.

ZS: When was the Porter Square station built?

JW: It was that whole Alewife extension. Let's see, it was under construction in '83. In '83, I know they partially opened the new Harvard Station. It was incomplete, but we opened that, so Porter and all those facilities, it was '86 or something like that.

ZS: Okay, because it was not that long after that Metro built the Wheaton Line with the membrane, because the Connecticut Avenue Line of course has one of those leaking problems for the same reasons. Then in the early nineties, they built the Wheaton Line with the New Austrian tunneling method and the membrane, and that's dry as dust from what I understand.

JW: Yeah, because I have walked through tunnels in Germany, some with trains and some where the trains weren't running yet, and in France and so forth. Paris, they did a tunnel the RER, the high-speed railroad subway east-west line under the **Market Hall** area. Very bad soil there, very bad stuff in the soil that would soak in and find the crannies, even in their good concrete, and would smell. It smelled like rotten eggs. They had to put extra ventilation at that big station by the two A and D Lines across that to get rid of the smell.

I have seen other leaky situations. There was a bad one; downtown Oslo they had a station once they had to close, actually, because on the trains, the leaks were so bad. They tried some waterproofing system that didn't work, and there was stuff in the soil that'd eat the concrete. In Marseilles, there's one section of tunnel, I saw that same situation myself, the stainless steel pieces taken out from the track area that looked like pieces of Swiss cheese. Stainless steel (indiscernible 00:43:22) the right material, the right poison. Yeah, I think we've done some decent stuff and some stuff that isn't so

good. Here, we tried to maintain like the continuity in the system in terms of graphics and some of the furnishings.

ZS: Oh, yeah. That was late sixties, right, that the whole graphic redesign came in?

JW: Yeah.

ZS: That not get a lot of good press in the architectural journals?

JW: When we did the southwest corridor because we had a lot of similar stations, and we had some architects and engineers that did sort of help set some overall designs, because it was quite different than the other routes, that they're – came up with a more standardized treatment for stations, at least with the platform canopy structure. Had a lot of fights about it, but it's turned out pretty well. But again, to get failures in concrete or paving that buckles, things like that and then nobody repairs it properly. They want to patch it and it's a botched butcher job; just too bad. Or they just don't maintain it, so things that are bad get worse.

Washington I think is pretty good on their maintenance and cleaning and all that. They had it group there for a while; I don't know if they still do it. In the planning area, my friend **Al Roar**, who had worked with me and then left and then came back, he left with the reduction of force, then he came back afterwards when the bill passed and all that. They had people in the planning department whose job – they had to take turns doing this – was going out and riding certain lines, talking to the station agents and maintenance

people, whoever they would see there, and looking at the condition, talking to patrons.

They did this on their way home or on their way to work in the morning, and then they'd write a report which went directly to the general manager's office. I don't remember who the general manager was at that time. It might have been Jackson Graham was GM for quite a while.

ZS: Not during operation, though.

JW: No, not during operation.

ZS: No, he left two months before they ran the first train.

JW: Oh, I don't know who was before David Gelman.

ZS: They had various people in.

JW: I know all the people that ran their bus operation in Washington (indiscernible 00:45:52) Shirley DeLibero. She was very good. She was brought up in General Motors automobile plant, then went to college, engineering, then the training program and all that. She was on the production line, could do a lot of stuff. She was doing here maintenance with the light rail car system. That was a den of iniquity, that whole maintenance operation. Union stronghold and all that, and she was starting to turn that around, but then there was a change in political leadership and she said no. She could see

the handwriting on the wall that the union bought the election, so it was going to be hopeless to deal with it.

She went down to Washington, took over one bus division, then she took over all three bus divisions. After that, I think she went to Jersey Transit and was GM for Jersey Transit for a while, and now she's down in Houston. Then she decided the sunny South was the place to be, though. Houston isn't. Sunshine is too much of a good thing down there. Yeah, the station architecture, I think the lighting is not very good. It's gotten better in some of the newer stations and some of the underground stations that are outside of the District, where there were able to break the mold and do some other things.

ZS: Well, Glenmont is very nice. There aren't too many underground stations.

JW: I think down on the Anacostia Line, I think those stations, though they are in the District, I think they came up with some better improved lighting.

ZS: I don't know. I know some of it was not –

JW: The graphics (indiscernible 00:47:39).

ZS: Yeah. Okay, well –

JW: What I don't know is, somebody said that the stations up on that like the Yellow Line or Green, whatever it is up there – when I was down there several months ago, I didn't have a chance to ride that line – that they actually have covers over the escalators.

ZS: Yeah. The new ones at Columbia Heights and Georgia Avenue, and now they're (indiscernible 00:48:08) putting them in everywhere.

JW: Ah, that's a smart move. We always fought that. Everybody would go to Washington and say oh, well why do you have to put that ugly thing in front of my building? Washington does that. Yeah, well, Washington has trouble.

ZS: Yeah, that's been – I mean, some of these things, debates go back forty years now.

JW: I got to find out what's going on.

ZS: Okay, well I think we're pretty much done here, so I will thank you very much.

JW: Oh, you're welcome.

ZS: This has been invaluable.

[End of interview]